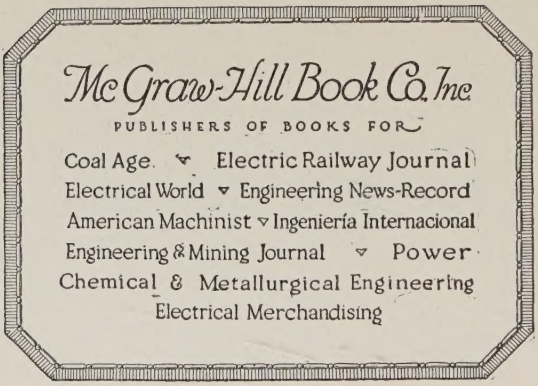
MARKET ANALYSIS


McGraw-Hill Book Co. Inc.
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Chemical & Metallurgical Engineering
Electrical Merchandising

MARKET ANALYSIS

ITS PRINCIPLES AND METHODS

BY

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FIRST EDITION
SECOND IMPRESSION

McGRAW-HILL BOOK COMPANY, INC.
NEW YORK: 370 SEVENTH AVENUE
LONDON: 6 & 8 BOUVERIE ST., E. C. 4
1921

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TO

Walter S. Hayward

ITS CO-AUTHOR

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PREFACE

THE purpose of this book is to serve as a guide for the manufacturer, sales manager, engineer, advertising agency, and others interested in the scientific analysis and organization of markets. Although addressed primarily to business executives, it is hoped that the book also will prove of value to the professional market surveyor, as well as to the student who believes that, in the coming business era, scientific methods will be applied to distribution as they were to production in the past era.

Although an attempt has been made to give the somewhat casual reader an adequate perspective of market analysis, the book is arranged so as to give the actual investigator all instructions necessary to the conduct of his work.

At the beginning of each chapter an outline is given of its content. This outline is in question form. It is, of course, impossible to devise a set of questions directly applicable to any and every business, yet it will be safe for the surveyor to assume that by the time he is able to give intelligent answers to these key questions he has in hand all the material necessary for a complete report on his market. The chapters and, in so far as possible, the headings under each chapter, have been arranged according to the surveyor's logical course of procedure, rather than with any attempt at a theoretical or merely pedagogical presentation of the subject.

In addition to those mentioned in the text, grateful acknowledgment is made to the following gentlemen for their assistance:

Charles F. Pietsch, of Frank Seaman, Inc., Earl C. Norris of Street & Finney, William Elliot of Packard Motor Car Co. of New York, Professor Frederick B. Robinson, Dean of the School of Business and Civic Administration of the College of the City of New York, J. B. Keeney, of the Editor and Publisher, E. O.

Sawyer, Jr. of the Fishing Gazette, John Willy of the Hotel Monthly, M. L. Tyler of the McCall Company, A. H. Melville, of the Nast Publications, L. J. Epply of the Hammermill Paper Co., L. D. Gatlin, of the E. C. Gatlin Co., W. J. Damm of the Milwaukee Journal, Frank T. Carroll of the Indianapolis News, Frank D. Webb of the Baltimore News, S. W. Page of the George Batten Advertising Agency, R. E. Carpenter of Hartford Automotive Parts Co., F. J. Arkins of the Alexander Hamilton Institute, Willard Fuller, Industrial Engineer, Theodore B. Damm of the Joseph Richards Adv. Agency, George H. Griffiths, of the Hardware Age, Robert C. Powell, of the Tracy-Parry Co., Arthur A. Pole of Hearst's Magazine, N. P. Winchell, Jr., of Paper, H. L. Potter of American Lumberman, H. S. Brutton of Proctor & Gamble Co., H. A. McKee of the Library Bureau, Raymond Welch of the Crowell Publishing Co.

Thanks are also due to Mr. Charles G. Wheeler, for invaluable assistance in proof reading.

As it is the author's intent to keep this book up-to-date, he would appreciate suggestions from readers calculated to be of assistance in making revisions.

PERCIVAL WHITE.

Boston, Mass.
September 1, 1921.

CONTENTS

		PAGE
I.	How Market Surveys are Made	1
II.	Methods of Securing Data	13
III.	Assembling and Analyzing Data	43
IV.	Presenting the Data	64
V.	Organizing the Market Survey	81
VI.	Determining the Problem	95
VII.	The Preliminary Analysis	103
VIII.	The Product to be Marketed	115
IX.	The Company	143
X.	The Industry in General	159
XI.	Competition	173
XII.	The Company's Customers	190
XIII.	The Ultimate Consumer	205
XIV.	The Nature and Size of the Market	222
XV.	Potentialities and Limitations of the Market	240
XVI.	Distribution	258
XVII.	Sales and Advertising	272
XVIII.	Foreign Markets	289
XIX.	Applying the Market Survey to Business	309
	Bibliography	329
	Index	331

MARKET ANALYSIS

CHAPTER I

HOW MARKET SURVEYS ARE MADE

EVERY business is concerned chiefly with two things: First with producing a commodity, and, second, with marketing it. This book aims to describe the latter function.

Originally, a market was the actual place where the exchange of one commodity for another took place. Since at that time there was no money, trading was done by a system of barter, by which the superfluous commodities of one man were exchanged for those of his neighbor.

Although markets have changed greatly in outward semblance since then, the fundamentals remain unaltered. A market is still nothing more nor less than an opportunity to buy or sell. The great difference lies in the methods of locating the market, supplying it with commodities, and securing payment for them. Markets have ceased to be local assemblies or fairs held at some crossroads or other central location. A modern market is limited in scope only by the number of possible users of the product throughout the world. The introduction of money, improvements in transportation, the rise of manufacturing, and many other factors have tended to specialize and complicate the original simplicity of the marketing function.

A market may be compared to a sponge, which absorbs the output of the business. It is necessary to determine how much this sponge will absorb, how fast it will absorb it, and many other facts, before it is possible to understand and reckon intelligently with the possibilities and limitations of that market.

Markets are Measurable. Markets do not happen. They follow and are governed by certain economic laws. That we are

unable to solve marketing problems more accurately and readily is not due to any irregularity in the nature of the markets themselves, but rather to our ignorance of the facts which bear upon the situation. If we were in possession of all the data, it is safe to say that markets would be as measurable, as certain, and as determinable as any other phenomenon which obeys fixed laws. Markets are real, tangible, definite things. They may be plotted and charted and mapped and reckoned with just as accurately as our knowledge of the facts will allow.

We are inclined to look upon marketing problems today as we looked upon production problems ten years ago. Manufacturing in those days was more or less subservient to accident. It happened. Schedules, planning departments, routing, and the other outgrowths of modern production were as unknown then as is market analysis today.

It seems indisputable that the markets of the future are to be won only through the application of the same scientific methods which were so successful in the field of production. It is probable that markets may be sought for so eagerly, as a result of this competition, that they will be available only to those who apply scientific methods most intensively.

The application of science to markets depends not upon guesswork, nor even upon a qualitative analysis of conditions, but rather upon a comprehensive understanding of industry in general, of the special line of business in particular, and of a quantitative analysis of all the facts involved.

It should be understood at the beginning that it is impossible to apply the methods of pure science to analyzing markets. A scientific man with no practical business experience is not well qualified. The only feasible program is to link the methods of the scientist with those of the experienced business man, and to apply the horse sense which is the keenest weapon of them both.

What is Market Analysis? Market analysis is the application of scientific principles and methods to problems connected with the nature, extent, and peculiarities of the market, together with the means for bringing the product to the market and distributing it there.

Every science is built upon facts. Therefore, the first step in the application of science to markets is to reveal all the perti-

nent facts possible to obtain. First, the market survey must get these facts, second, it must analyze and interpret them, and, third, it must show how the conclusions reached may be applied to the particular business in question.

It has been said in regard to all commercial research work that the man is more important than the method. To a great extent this is true. It is very largely in the hands of the man in charge of the actual research work to make or mar the results of the investigation. Although the fundamental principles underlying every market investigation are the same, the individual problem demands individual treatment. Ordinarily, this requires a man of scientific training and habits, who has, in addition, a thorough grasp of business principles.

The success of a market analysis depends upon both the man and the method, the one supplementing the other. The man supplies by judgment and experience the place of insufficient or confusing data. The method serves to put in order and to collate the steps in the procedure.

What a Market Survey Does. The opportunity for profit obtainable from a well-executed market survey will depend upon the specific nature of the problem in hand, the readiness of the management to accept and to act upon its conclusions, and upon other considerations treated at length in later chapters. Any market survey, however, will serve to bring to light certain data fundamental to any thorough understanding of the market. These may be called the general results of market analysis, and may be classified as follows:

1. A market survey should lead to a better understanding of present markets, through an analysis of the actual consumers, their location, numerical strength, purchasing power, buying motives, and likes and dislikes.

2. The discovery of unexploited markets is one of the most frequent results of market analysis. It not only determines the location of these untouched territories, but analyzes their possibilities and limitations.

3. A market survey will not only delineate the actual and potential market for the product itself, but also for any by-product of the industry.

Aside from these general results, there are a number of specific

results, involving a change in the method of approach to the market or a change in the product offered to the market, for example:

1. Since the sales department is most vitally interested in the actual marketing problem, it is but natural that many findings should directly affect the present sales program.

2. The same considerations apply to the advertising department, which is wholly a marketing function.

3. It is possible that the market survey might point to a change in the product itself, in order to make it more suited to market requirements.

4. A market survey may result in the more accurate correlation of purchasing with production and sales. It may serve to show why seasonal demand can be eliminated or made a much less important factor.

5. A market survey may make clear to the minds of the executives the importance of changing the distributive system in vogue.

The above are merely suggestive of results which might be obtained. It does not follow that a market survey will necessarily upset the established order of things. Quite the contrary. It may merely point out ways and means by which present practices may be bettered in so far as they affect the marketing function.

The Steps in the Procedure. Every market investigator will find that there are certain methods of procedure common to every investigation. Before embarking on his individual program, he should find time to study the broad aspects of the situation. The first move is to obtain a general perspective of the entire problem. The advantage of this lies in the opportunity it affords him to block out clearly the subsequent procedure.

There has been a tendency, particularly in research departments maintained by private companies, to do each day's task as it presents itself, rather than to plot out the entire program and to work on a definite schedule. This day-to-day policy often proves to be a hopeless undertaking, chiefly because it almost always appears that the more one investigates, the more investigating remains to be done. The only logical course for a company desiring to try out market analysis on a small scale is to decide in advance how much time and money may be allotted

for this trial, and then keep to this schedule from the outset as far as possible.

Although market survey work is divisible into a fairly definite number of operations, these vary somewhat with the nature of the subject under investigation. There is also a certain tendency among them to overlap. The line of demarcation becomes blurred. It is almost impossible to complete one operation before beginning the next. For instance, in collecting information, particularly in the preliminary investigation, it will be found that data relative to the company, its product, competition, customers, etc., will be so intermingled as to form a baffling medley of information. Before this can be put to use, it must be classified under the respective headings as determined in the original scheme.

Determining the Problem. What is the precise objective of this market analysis? What results do we wish to accomplish? What particular phases of the market are we to study? What restrictions are there on our plan of action or our method of attack? To answer these questions is the first consideration in every market survey.

The main difference between the scientific examination of the marketing problem made by the surveyor and the shrewd analysis made by the veteran salesman is mainly a matter of accuracy. The salesman bases his opinion upon a species of intuition, born of long experience. The surveyor, who attempts to analyze markets scientifically, must regard his intuition as of secondary importance and base his judgment on facts.

The man who is commissioned to make a market survey for a company may find himself adrift without any definite instructions. His first task, accordingly, is one of definition. If this company and this market are different from other companies and other markets, wherein does the difference lie? What are the peculiarities of this business? What are the problems the company's executives consider paramount, and are these really the vital ones?

Often the precise determination of the problem in hand is among the most difficult of any of the steps to be taken. In this part of the work, especially, the investigator will need to call upon his associates and superiors for assistance and advice. In all probability, the surveyor will find himself confronted with the

very obstacles which the company's executives have been struggling against for years, and he will find it necessary to face these issues squarely and boldly.

The surveyor may not always be successful. In one case, a market analysis was made of a certain chip soap. An examination of the findings indicated that, under conditions then existing, it was highly desirable to market this product through retailers dealing in household washing machines. However, owing to the prejudice of the company's officials, this proposition was considered too radical a departure from the ordinary, consequently it remained for a more enterprising concern to take advantage of the opportunity. Here, the surveyor's findings were successful, but his work was not profitable, because it was not utilized.

The surveyor should begin his work with a realization that, whatever business is being investigated, its field is not God-given, nor is it basically different from thousands of others. He should not hesitate to see the facts as they are, and to record what he finds. If the company's officials do not want the truth. they have no need for a market survey.

The Preliminary Analysis. In addition to noting preliminary impressions, it is often desirable for the investigator to make in written form a proposal setting forth exactly what the survey is to cover, what the general plan of action is, how much time it will take, what it will cost, etc. It is a wise rule to keep a record of daily progress—commonly known as a "progress report"—and to have this where it may be referred to readily. Written notes act as a ratchet. They prevent slipping backward. Furthermore, they enable the surveyor to present to his superiors incontrovertible evidence of his plan of action, and of its progress.

When the proposal, or preliminary analysis, is completed, it may be taken up with the company's officials for discussion, modification, and approval. This will have two definite results: First, it will give the company's executives, who are most vitally concerned, an opportunity to see what progress is being made, and to offer criticisms and suggestions. Second, after hearing what criticisms are made on the preliminary report, the surveyor has a definite program upon which to work.

This proposal cannot be expected to outline the procedure or the results except in a general and, perhaps, somewhat vague

manner. The outcome is bound to depend upon facts which will not appear until the market survey is well under way. It is dangerous to promise too much in advance. For example, one ambitious research specialist thought he had discovered how to predict mathematically the potentialities of foreign markets for motor cars. He agreed to work out a formula, the factors of which were the wealth per capita and the number of inhabitants per mile of road. The elements of error, however, and the diversity of local conditions, were so great that the surveyor's promise had to be retracted.

Obviously, the investigator's first impressions must not be taken too seriously. They admittedly will be open to the very objections to which the intuitive judgments of the veteran salesman are open. It is to be expected that these preliminary findings must be carefully revised in the light of evidence later obtained.

Enough time should be allowed to make the preliminary study fairly thorough. It seems to be the consensus of the best opinion that the creative work should be done as near the outset as possible. Any method which postpones it until after a long siege with statistics and details courts failure.

Planning the Campaign. After making a preliminary diagnosis, it is necessary to get down to a thorough, plodding, intensive study of the various phenomena involved. Much of the creative work now will have been accomplished, but a great deal of routine work still will remain. This will be of the scientific, laboratory sort, which cannot be slighted or guessed at, and which takes time and pains. Every finding and premise must be scrutinized with a view to deciding upon its accuracy and adequacy. Predetermined ideas must be challenged, wherever there is the least possibility of error.

The situation is somewhat like that of the lawyer who has investigated his case, found the criminal, made sure of his guilt, and haled him into court. But he is still confronted with the very definite problem of obtaining proof of his guilt. Mere circumstantial evidence and hypothetical deductions will not pass muster. He must establish his facts. He must prove what he says.

At this juncture the surveyor should decide what informa-

tion to obtain. The entire program for gathering this information should be mapped out in advance. What are we to find out? To what sources are we to apply? What methods shall we use for tapping them? How extensive a study will be necessary to give an unassailable preponderance of facts or opinions? What people shall we need to interview in person and how many can be reached by letter? How much traveling must be done? What books must be consulted? What other similar investigations have been made which can contribute facts or figures?

The Company and Its Product. Invariably, the engineering approach to any market must be made through a study of the merchandise itself. In the last analysis, it is the product which determines the company's success. Not the best production methods, the best purchasing program, nor the most convincing salesman in the district can make a company prosperous if its product is not satisfactory. The man or woman who actually makes use of the product is going to judge it on its intrinsic merits.

Fortunately, the product is the easiest and most tangible subject for study. A great part of the market survey will be devoted to analyzing character, scope, and extent, etc., of the *need*, which must of necessity exist for every merchantable commodity. The survey will analyze past history as a means of shedding further light upon the future. It will examine the actual construction of the product, the way it operates, what it costs, what its advantages are, what shortcomings it has, what materials enter into its construction or composition, etc.

The surveyor goes even farther and studies the organization which produces the goods, its facilities for keeping up quality and keeping down cost, its ability to produce in quantity, its method of distributing and selling, and its personnel.

The Industry in General. The survey must include a study of the industry in general as well as of the company and its product. To express it in another way, the problem must be examined from without as well as from within. Whereas the study of the company and its product usually may be approached rapidly, and with fairly certain results, the study of the industry in general probably will prove more devious. Nevertheless, many data may be collected without undue difficulty or expense, partly through bibliographical work, and partly through the

examination of advertising matter appearing in magazines and elsewhere, through catalogues, government publications, etc.

The history and development of the industry should be carefully examined, and an attempt made to orient it with respect to the industrial activity of the entire country. This is all done for the purpose of ascertaining the exact place of the company in the industry. By comparing the relative growth of the company and the industry, it is easy to determine whether the company is expanding proportionately to the industry. A comparison may be made of the total volume of the goods in question as contrasted with those which the company itself manufactures, showing the amount of business the company is obtaining. Some attention may well be given to its relation to foreign business. Various other considerations will present themselves, such as the stability of the industry, its likelihood of survival, the capital invested in it, etc.

Competition. Competition should be studied from the standpoint of the product, its price, quality, location and ease of transportation, with such other factors as may occur in this connection. It also should be studied from the viewpoint of the competing organization itself, its purchasing, production, and merchandizing methods, etc.

There are many other considerations in regard to competition, too numerous to be treated here. What is the character of competition in the industry? Is there a tendency among competing companies to combine? How does this affect the company's problem?

Who are the company's competitors? How large are they? Where do they market? What are their relations with the public? How do they sell their goods?

What is the basis of competition? Is it price, better terms, better quality, or a combination of these and others? Other data relating to competition will suggest themselves, such as the class of labor employed, its availability and degree of skill, the publicity methods used by competitors, the volume of advertising, the results obtained therefrom, etc.

The Company's Customers. The company's customers may be of two kinds—middlemen or consumers. Information from either of these classes is usually readily available.

The survey should supply much valuable information as to the purchasing motives of customers, why they bought from the company in the past, whether it was because of tradition, personal feeling, quicker deliveries, closer location, better price, better terms, quality, advertising, service, etc. The value of this information will vary according to the prestige and size of the customer, and to the intrinsic merit of the criticism.

It usually is desirable to ascertain why former customers have ceased trading with the company and whether it is possible to secure this patronage again. To do this, not only the reasons for their going elsewhere must be analyzed but also whether these reasons are still well founded.

The Market. Much of the routine work and the larger portion of the field work will have to be done in connection with the customer and consumer investigation. This section of the survey work, therefore, should be started as soon as possible, since it may take considerable time to gather the necessary information.

A study of the market entails an investigation of what persons are going to buy the product, where they are located, how numerous they are, what induces them to buy, and what prevents them from buying. It involves a scrutiny of the actual market for the product as compared with the potential market. It considers limitations on sales due to the characteristics of the average consumer, and also the peculiarities arising from geographical position. The purchasing power of the community is examined, and also the price-range within which the company may hope to sell its products.

The analysis of the market is the ultimate purpose of nearly every market survey. All the remainder is subservient to the question of fitting the needs and desires of the market to the production facilities and policies of the company.

Analyzing, Interpreting, and Presenting the Data. Methods of obtaining opinions and facts for a market report are as numerous as there are businesses, and almost as different as one business is from another. They cannot be entirely reduced to any final standard practice until human nature itself has been standardized. In all these matters, however, it is necessary to get real information and actual facts. How they are obtained does not matter so much as getting them.

In any case where the future must be reckoned with, opinions should be obtained. Although an individual opinion, no matter how weighty, is prone to error, the consensus of a great many opinions is perhaps the safest indicator of future events. But they should be those of men who know, if business men are to be expected to risk money upon them. These opinions, together with the facts, form the framework upon which the engineer builds the edifice of his report.

Throughout the actual writing of the report, great care must be taken to see that its form is such that it will carry its message simply and forcibly. In fact, the form of the report itself is one of those factors which should have been carefully planned at the outset of the investigation. It is good practice, whenever possible, to make the outline of the preliminary report like that of the final report.

Reports should be illustrated. Graphic methods of presentation enable the business man to see the whole panorama. The industrial engineer already has brought the graphic art to a high pitch with his schedules and planning boards and cost sheets. The market engineer follows in his footsteps and charts markets.

Formulating the conclusions is an all-important task, since they are the gist of the entire investigation. A report which has been conscientiously prepared, and which is based upon evidence from a sufficiently large range of sources, is certain to imply its own conclusions. In other words, if several persons should read the report, all would draw from it approximately the same deductions. It is good policy to apply this test to every report before finally submitting it.

Applying the Data. A report will be of little value to the business unless it is acted upon. After the investigation has been completed, a certain course of action probably will suggest itself. No beneficial results are to be expected from any remedy until it has been administered. The application of findings may not be within the province of the man who made the survey, yet it never should escape his mind that the success of his work is in direct ratio to the expediency and applicability of his recommendations.

It may not be possible to act on the report at once, yet the executives for whom it is made must realize that the conclusions

of a properly conducted survey will represent a consensus of facts to the ultimatum of which, sooner or later, he must bow.

The completion of a market survey necessarily carries no finality. Conditions in every industry and in every business are always changing. The market survey which is pertinent today may be so much out-of-date a year hence as to be an actual menace. Every market report should be brought up periodically for revision. Like all development work, the analysis of markets, to bring in the greatest revenue, should be a continuous process.

Having obtained an idea of the points which are covered by the market survey, it becomes necessary to study the technique of gathering, assembling, analyzing, and presenting data, and of organizing the work. The following four chapters will be devoted to these subjects.

CHAPTER II

METHODS OF SECURING DATA

Outline

What are the existing bibliographical sources of information?

A. Where may bibliographical information be obtained?
   1. The library.
      (*a*) Public.
      (*b*) The company's.
      (*c*) Technical or scientific libraries.
   2. The government.
   3. Publicity literature, catalogues, pamphlets, etc.

B. What books have been written?
   1. On the industry in general?
   2. On the product?
   3. On merchandising methods (sales, distribution or publicity) used for this or similar products?

C. What periodical literature may be of help?
   1. Trade papers and periodicals.
   2. General periodicals (Poole's Index).

D. What sources of statistical information are available?
   1. Government.
   2. Libraries with statistical departments.
   3. Statistical bureaus.
   4. Trade associations and periodicals.
   5. Newspapers.

E. What other written information may be of assistance?
   1. Catalogues.
   2. Pamphlets, monographs, etc.

How should the questionnaire be treated?

A. How many questionnaires is it necessary to send to ensure an adequate number of replies?
   1. Does this depend on
      (*a*) The character of the audience, its intelligence, etc.?

(*b*) The interest of the recipients in the subject?
  (1) Either academic or technical interest.
  (2) Possible commercial interest.
(*c*) Inducement to reply?
  (1) Promise of digest of findings.
  (2) Stamped addressed envelope enclosed.
  (3) Special delivery stamp affixed to return envelope.
  (4) Promise to keep confidential.
  (5) Assurance that no salesmen will call.

B. To whom shall questionnaires be sent?

1. To authorities on the subject.
   (*a*) Technical questions.
2. To jobbers or other intermediate middlemen.
   (*a*) Questions of distribution.
3. To retailers.
   (*a*) Sales problems, buying habits of public, criticisms, etc.
4. To consumers.
   (*a*) Questions as to the popularity of product, reasons why, criticisms.

C. Where shall mailing lists be obtained?

1. From commercial registers of manufacturers.
2. Purchasable mailing lists.
3. Lists already possessed by the company.
4. Lists furnished by trade papers.
5. Telephone books with classified directories.
6. City directories.
7. Lists furnished by jobbers.
8. Lists furnished by newspapers.

D. What are the requisites of a questionnaire?

1. Depends somewhat on whether information desired is
   (*a*) Statistical.
     (1) Yes and No type.
     (2) Numerical.
     (3) Categorical.
   (*b*) Informative and critical.
2. Questionnaire should be brief.
3. Logical and sequential.
4. Condensed.
5. No opportunity for ambiguity.
6. Should offend no prejudice.
7. Unbiased.
8. Questions easily understandable.
9. Made easy for recipient to answer.

E. What are the requisites of the letter accompanying the questionnaire?

1. Must interest.
2. Courteous and not flippant.
3. Short.
4. Should state reasons for wanting information.
5. Must be sincere.

F. How should the questionnaire be reproduced and sent?

1. Shall it be multigraphed, printed, typewritten, or how reproduced?
2. Should it be combined with letter or separate?
3. Is it necessary to send special letters requesting information?
   (*a*) To those who do not fit in categories of questionnaire?
   (*b*) To specialists from whom special information is desired?

What is the sphere of the interview?

A. What are its advantages?

1. Does it obtain a larger percentage of replies than other methods?
2. Is it more accurate?
3. Is it easier to obtain information?
4. Is information more comprehensive?

B. What are its disadvantages?

1. Is it too expensive a method for a national survey?
2. Is its value dependent on the interviewer to a great extent?
3. Is an interviewer likely to become biased?
4. Must interviewer carry written questionnaire?

C. What are the requisites of an interviewer?

1. Must be able to observe.
2. Should know subject under investigation.
3. Must be tactful.
4. Must know how to meet people.
5. Must have good memory.
6. Must know how to obtain entree.

CHAPTER II

METHODS OF SECURING DATA

How is the investigator to get the information which will enable him to make the report? Roughly speaking, there are three main methods. First, bibliographical, or assimilation of what has been written on the subject; second, by questionnaires addressed to those in a position to give authoritative information; and third, through interviews in person.

The subjects discussed in this volume will not necessarily lend themselves to any one method of investigation, but some seem to be more easily approached by one channel than by another. For example, in treating of the industry in general, a great deal of information may be obtained bibliographically. On the other hand, data as to the company will rarely be bibliographical, but will be obtained rather by personal interview and by reference to company records. Some companies, it is true, have had their histories published, yet, although there may be a certain amount of bibliographical material about the company, it is likely to be limited almost entirely to narrative. It is easily possible to get too much history in this sort of work, especially history which is merely qualitative.

Information as to competition can rarely be obtained satisfactorily through correspondence with competitors, although often a great deal may be got through direct interview. It is good policy to interview customers in person, but it may be much more economical to obtain data from them in writing. From the ultimate consumer, data in writing are apt to be careless and ill-considered.

One method productive of very good results as far as the product is concerned is to submit a sample to the housewife for her opinion, thus obtaining actual first-hand evidence on the product and its competitors. This scheme proved very helpful in a textile investigation.

Various similar expedients, particularly adapted to the research in hand, will suggest themselves. One investigator spent three days behind the counter of a large department store. From his experience he was able to make a personal size-up of what the public bought, why they bought, and how much they paid, as well as to record a number of shrewd observations as to buying habits which could not have been obtained in any other way.

Bibliographical Work. If possible, bibliographical work should be done first. It allows the investigator to obtain a grasp of all that has been previously written on the subject. It frequently saves him much labor, in the preparation of charts and the search for figures, to take advantage of the work of others. In profiting by other people's mistakes, it also prevents him from going astray.

With market research work, the same principles hold true as with any other class of research work. For instance, a person doing chemical research looks up the chemical abstracts and finds out everything that has been done on this particular problem before going ahead with original research. This is exactly the case in making market surveys. Immediately after the preliminary investigational work has been completed is the time for that of a bibliographical nature. This includes both work done at the library and literature obtained from outside sources in the form of catalogues and pamphlets, newspaper articles, etc.

The besetting danger in all bibliographical studies is that the material may be out-of-date. Conditions change with such rapidity that what was true twenty or even ten years ago may be entirely false today, yet a great many books on any subject, except those of recent inception, have been published more than ten years ago.

(*A*) *The Library.* Work at the library consists first of examining the books on the subject, and secondly the periodical literature.

(1) *Books.* There is great likelihood of the surveyor's being able to find books dealing with the industry in general, and there may be also technical books dealing with the product.

A library is frequently deficient in the class of books desired for research, especially the smaller libraries. The appeal of these technical books is so specialized and directed to such a

small audience that the librarian may think it hardly worth while to get them. Many libraries, however, have arrangements for borrowing from each other, and in this way many valuable works may often become available.

The investigator should not forget that now is the time to gather information about allied industries, and that often when the literature concerning the subject under survey is rather scanty, there may be much to learn from literature on kindred industries. For instance, in an investigation of shoes, much material might be obtained from books on leather, since the leather industry devotes so large a part of its output to the shoe industry.

Proper bibliographical work entails more than a glimpse at the library catalogue. Catalogues are often faulty when it comes to investigatory work. The bibliographer must use one source of information as a lever by which to pry out the next. Frequently one book mentions another as authority. In this way, a chain is formed which leads to much valuable information.

It is possible to have the bibliographical work done outside. A trained bibliographer can often do such work much more rapidly and efficiently than an amateur. For example, the Engineering Societies Library in New York does this work on all technical subjects at a very reasonable charge. In fact, there are several such bureaus.

The great obstacle to thorough bibliographical work is, as mentioned before, the lack of up-to-date books in the average library, and also the lack of completeness in any individual collection. There is also the danger of going too far afield and collecting much information not strictly pertinent to the inquiry. The place of all bibliographical work should be clearly understood and neither over- nor under-emphasized. Its function is to supply what information others have gathered on this subject. The investigator never knows what he is going to find until he looks, and he should go through the library with a view to exhausting its possibilities under all angles of research into the company's problems, not only the product and the industry, but distribution and sales problems as well.

The company's library, if it has one, will obviously be the first place to begin the bibliographical work. The average com-

pany library consists of a few technical books dealing with its own particular subject, and of various reports, appraisals, and miscellany which the investigator should not fail to take advantage of. Practically every company that has been through the ordeal of scientific management has a quantity of literature and records. From these, it may be possible to obtain leads for further bibliographical research.

(2) *Periodicals.* In every industry of importance, there are trade papers. One of the bibliographical tasks of importance is to go through the index of these periodicals and examine the articles which appear relevant. Chiefly important will be sidelights thrown on the activity and progress of competitors.

The investigator should not be contented to look up the periodicals themselves, but should get in touch with the editors of those magazines. Editors are almost always willing to coöperate, and their comments and recommendations are frequently very helpful. It is well to make it understood at the outset that the surveyor cannot agree to recommend that advertising be placed in their paper in return for the information, but in most instances the trade papers are willing to supply information as a service to potential advertisers.

In addition to trade papers, there may be other articles of interest and importance elsewhere. These articles may be found listed elsewhere, as in Poole's Index of Periodicals, The Reader's Guide to Periodical Literature, or the various technical indexes. In addition to these, the Index to Chemical Abstracts often refers to many articles appearing in periodicals which might not be traced otherwise, and these references are not necessarily of a chemical nature.

Another possible source of helpful information is literature on industries selling to the same market.

(3) *Statistical Sources of Information.* From the point of view of the survey, bibliographical work is divided into historical, descriptive, and statistical information. The historical data usually relate to the industry or the company, or perhaps the history of the product; the descriptive material has to do with the nature of the present product, methods of merchandising, and distributive organization, while the statistical information gives actual figures which may be used in making up charts and tables.

The government has hitherto been the chief agency for gathering statistics, through the work of the census bureau and the various statistical bureaus. The information is readily available and as authoritative as is possible with any work of such enormous scope. Although other statistical studies of the same subject may have been made, they are frequently hard or impossible to locate. Certain libraries have statistical departments which may prove of assistance; local newspapers sometimes can help; trade associations and journals frequently have compiled statistics. There are also societies which devote themselves more or less exclusively to statistics.

The authority for any figures used should be carefully checked up. Government figures, though fairly reliable, are often too old for accurate use today. That is, conditions have changed to such an extent that more up-to-date information is necessary.

(*B*) *Written information from other sources than libraries.*

Something has already been said about the catalogues and other literature which may be obtained from competitors, and of the importance of this fact in relation to competition. This literature is equally valuable as illustrating the publicity methods of other members of the industry, the way in which they obtain their publicity, the kind of illustrations, etc.

The investigator should make a point of collecting all such catalogues obtainable. He may also send to the various trade associations for their printed literature. In addition to this, many newspapers maintain trade information bureaus which will supply facts on request. It is better to err on the safe side and write a few extra letters rather than to miss any opportunities for securing pertinent facts.

The government prints a booklet indexing the various pamphlets published by the government printing office, and the investigator should make a point of sending for them.

Another bibliographical source which should not be neglected is the Bureau of Foreign and Domestic Commerce. This organization maintains several district offices throughout the country at which very complete files are kept of information, particularly in regard to foreign happenings in the industry.

The Questionnaire. The questionnaire has been the object of much adverse criticism as a means of gathering information.

It has been contended that it is not worth the money spent upon it when personal interviews obtain so much larger a percentage of replies and information. The answer is plain. The functions of the questionnaire and the interview are supplementary. For an ordinary investigation, the work of interviewing personally must necessarily be limited to local or semi-local surveys. It is too expensive a method to cover the country by personal interview, while a questionnaire can be sent across the continent for two cents.

It is true that many people dislike troubling themselves to answer a written questionnaire, and it is also true that these same people might answer questions put by a personal investigator. It is, again, a fact that in some cases replies to written questionnaires are valueless. But it is believed possible to frame a questionnaire in such a manner that the results obtained therefrom will justify the expenditure and ensure reasonably accurate results.

How many questionnaires must be sent out to ensure an adequate number of replies on which authoritative conclusions may be drawn up? The character of the questionnaire plus the character of the audience will determine in great measure the percentage of answers. Then, by comparison with the results of previous questionnaires to similar audiences, it is possible with fair accuracy to calculate the number of questionnaires necessary to send in order to obtain the desired number of replies. This number should be ascertained in advance, since from the results of the questionnaire must be made up many of the charts and statistical exhibits.

There is a very direct relation which the type of person to whom a written questionnaire is sent holds to the satisfactory character of the replies. Usually the more intelligent the audience, the better the replies. This does not necessarily apply to the percentage of replies, which is dependent on many factors.

As instances of replies to questionnaires, 500 questionnaires were sent out to truck users. There were 180 replies, 140 of which answered adequately the questions asked. *Vogue* sent questionnaires to the first fifteen subscribers listed in each of 138 American cities and suburban towns. Forty states were covered. Two thousand two hundred and sixty-five questionnaires were mailed.

Six hundred and twenty-six replies were received promptly, or 27.6%. This was exceptionally good. Ordinarily, 20% of replies is regarded as excellent.

It is quite possible that it may be to the recipient's advantage to answer the questionnaire. If so, it will increase the percentage of replies. In the case of a new product, for instance, the recipient of the questionnaire may wish to obtain samples or actually to purchase.

Whenever possible, it has been found very productive of results to enclose a stamped envelope for reply. The extra cost is negligible compared with the bettered results. In some cases this is not necessary or even desirable, but as a rule the courtesy is appreciated. The stamp itself is not sufficient, but should be attached to a "self-addressed" envelope. Often the inconvenience of affixing the postage is sufficient to deter a reply.

Special delivery stamps have been found effective in the case of emergency. The recipient is somehow more impressed with the importance of the questionnaire and, since his conscience usually prevents his appropriating the ten-cent stamp, he is considerably more apt to answer. There are comparatively few people who will not reply to a special delivery letter, in the first place because it is novel, and in the second place, because it has succeeded in arousing their interest. Also, this scheme brings in replies at a much more rapid rate.

A telegram questionnaire is still more insistent. It practically demands reply. In some cases, it is possible that it might be valuable, but it is too expensive, save for emergency.

One of the most telling criticisms of the questionnaire method of obtaining information is that no one wants to give something for nothing. What are the people who answer the questionnaire going to get out of it? One plan has been tried with excellent results, namely, in writing to people who are really interested in the subject, to promise to send them a digest of results for their own use. Tell them frankly that this questionnaire is being sent out to them, to their competitors, and to experts on the subject. Do not try to disguise a questionnaire. They are always recognizable.

Another point to make clear to the recipient is that the replies will be treated confidentially. People are not usually inclined to

express themselves freely if they think they are going to be quoted. This is often brought up as an argument in favor of the verbal interview over the questionnaire.

Still another point to remember is to make it clear in the letter that no salesmen will follow up the letter, although the case may be such that this expedient will not work out.

It is frequently unnecessary to mention the name of the company for which the investigation is being made. The investigator will find it profitable in many cases to use his own name rather than that of the company. In the first place, the company may not wish to have its name used, and in the second place, using the individual's name may, for divers reason, bring in a larger proportion of replies.

Interest in the Questionnaire. To obtain satisfactory results, the person to whom the questionnaire is addressed must be interested in the problem. It should, if possible, be more than a mere casual interest; it is for this reason that questionnaires sent to ultimate consumers are less likely to be effective unless there is an incentive for them to reply or expend any thought on the problem.

Textile soap, for example, is a minor item in the production of cloth, but when spindles are discussed, the mill agent is interested immediately, because it may mean dollars and cents to him. He will accordingly pay attention to a written questionnaire on spindles where he would throw a questionnaire on textile soap into the waste basket.

In an investigation of matches or safety pins, it would be of no use to send out questionnaires to consumers, few of whom spend any thought on matches or safety pins, know the make of them, regard them as satisfactory or unsatisfactory, or have any valuable suggestions to make as to their improvement. But when it is a question of washing machines, consumer investigations may prove to be of distinct value. A washing machine is an individual product and a new product. Thus, consumer investigations depend for their value upon the nature of the products themselves.

If interest can be aroused in the subject matter of the questionnaire, and further, if any assurance can be given that the recipient of the questionnaire will have an opportunity to see a digest of

its results, either in print or by means of a personal copy, the success of the questionnaire is secured. A large dealer in hardware sent out a questionnaire to other hardware dealers, with a view towards ascertaining the extent to which automobile accessories were merchandised through hardware stores. Five thousand letters were sent with a return post card enclosed. Sixteen hundred and ten replies were received, from every state in the union. The recipients were interested because the subject vitally concerned them, and they, too, wished to know whether the hardware store was to be in the future an outlet for automobile accessories or whether it was only a passing arrangement.

Mayer Brothers, Chicago clothing manufacturers, recently sent out a questionnaire in behalf of their service department. To an exceedingly detailed list of questions, a 50% reply was secured, chiefly because the audience was interested in the questionnaire's contents. See Fig. 1.

To Whom Shall Questionnaires be Sent? In general, questionnaires will be sent to:

(1) *Authorities on the Subject*, technical experts, trade papers, trade associations, chambers of commerce, etc. Questionnaires will have to do with the state of affairs in the industry, its prospects, improvements in the product, satisfaction with the product as it is at present, etc.

(2) *Jobbers*, whether handling this particular line or not. The jobber is not ordinarily so willing to reply as those in the previous classification. He must see some reason for his doing so. Frequently, the questionnaire comes back with the words, "Not interested" scrawled across the face of it.

(3) *Dealers*. As many dealers as possible should be circularized, and, as happens most frequently, if it is necessary to make a selection, be sure that it is representative, not only territorially, but according to size. The opinions of the small dealer are, in their way, as important as those of the big retail factors. Figs. 2 and 3 show how the *Milwaukee Journal* differentiated their customer and consumer questionnaires.

(4) *Consumers*. As mentioned before, in the case of the ultimate consumer, the nature of the product will determine ordinarily whether it is worth while to attack this source of information by questionnaire. In any case, it is difficult to get coherent

ADVERTISING SERVICE EXCHANGE QUESTIONNAIRE

Check types of advertising helps you find best suited to your business.

Clothing newspaper cuts. Furnishing department cuts. Movie slides. Show cards. Merchandise novelties. Wrapping paper with Ad. Merchandise envelopes with Ad. Newspaper advertising. Personal letter advertising. Special circular advertising. Special sale advertising. Transparent signs. Metal plaque and mounted glass signs. Advertising package enclosures. Stationery with Ads.

Could you use a special booklet giving concrete suggestions to your sales help on the subject of selling clothes, including not only the principles of selling, but also a brief discourse on clothes-making and materials?

In your opinion, would it be advisable to issue regular Advertising Aid Catalogues to the clothing merchants—these catalogues to contain floral window decorations, special service cuts, suitable novelties of the day, special art service, special price tickets, display cards, carry-all bags, moth-proof bags, and other items of vital interest to advertising and sales departments of clothing stores—all of these articles to be sold at actual cost?

Do you find regular seasonable sales an aid to your business?

Do you believe in community work?—that is, an organization of business men for bettering town conditions and creating friendly feeling between the business man and the farmer?

Is the retail mail-order business a problem in your section? Have you been able to combat the problem? If so, please tell us how.

If you were conducting the advertising department of a clothing manufacturer, what type of service would you give the merchants from an advertising and sales promotion standpoint?

Do you believe in advertising nationally advertised clothes lines over your own name, or do you prefer advertising your own store and clothing under your own name?

Do you believe that poster advertising is beneficial to merchants?

If a number of full-sized posters, beautifully colored, were furnished you, free of charge, would you see that these posters were placed on billboards and pay the billboard charges?

Are you in favor of sending style books to the consumer?

Would you think it advisable to have one style book that would include both the men's and boys' clothing, or do you think it would be better to have different style books—one showing boys' clothing and the other showing young men's clothing?

If you were to issue style booklets, and envelopes free, and take care of the mailing free of charge, would you be willing to pay the postage charges of 1 cent on each mailing, and furnish us with a mailing list?

In your opinion, why do men favor and buy certain brands of clothing?

Why do mothers and boys buy certain brands of clothing?

Are you at present handling any advertised brand of clothing for men? For boys?

If so, for how long a period?

What percentage of your customers specifically inquire for the lines so advertised?

From your own experience, have you found animated movie film advertising effective?

Assuming that we were to prepare an interesting movie film that would vitally interest the trade in your store would you be willing to pay not more than $7.50 towards the cost of the film?

FIG. 1.—Questionnaire, the success of which was due to Recipient's Interest in Subject.—(*Printer's Ink Monthly.*)

Name.....Address.....

Type of Store.....Party Interviewed.....

What brands do you sell in each of these divisions?.....

Cigars..... Cigarettes..... Tobacco.....

What price cigars, cigarettes and tobacco show the biggest increase in sales?

Cigars..... Cigarettes..... Tobacco.....

To what do you attribute the success of the leading brands?.....

.....

Do you push any certain brands?.....

Do men ask for cigars, cigarettes, and tobacco by name?.....

.....

What priced cigars, cigarettes and tobacco are the best sellers? .....

Cigars..... Cigarettes..... Tobacco.....

Do men often switch from one brand to another?.....

Why?.....

What manufacturers' advertising is of greatest assistance to you in increasing your cigar, cigarette, and tobacco business? .....

.....

In what Milwaukee newspaper would you recommend a manufacturer of cigars, cigarettes or tobacco to advertise in order to secure the best results.....

General Remarks:—.....

FIG. 2,—Questionnaire used in securing data from dealers.—(*Milwaukee Journal.*)

What is your line of work? (Please classify as office, heavy labor, outside, etc.).....

Do you smoke?.....

What do you smoke?.....

Cigars..... Cigarettes..... Pipe.....

How much do you smoke a week?.....

No. of	No. of packages	No. of packages
cigars....	of cigarettes....	of tobacco....

Is price an influence in your purchase of the above?.....

What are your favorite brands?.....

.....

Do you often change from one brand to another?.....

Why?.....

Does newspaper advertising influence you in your purchases?.....

.....

General Remarks:—(Please give any opinion or reasons you may have in regard to the above.).....

Name.....

Address.....

FIG. 3.—Questionnaire used in securing data from consumers.—(*Milwaukee Journal.*)

answers to general questions, and the element of error in answering quantitative or "yes and no" questions is large. Many individuals seem to put down whatever comes into their heads.

Another difficulty found in sending questionnaires to consumers is that it is hard to fix upon any inducement to offer them for a reply. They care nothing for a digest of findings. It is a curious psychological fact, however, that many of them do reply. It is a safe rule to follow here that a stamped and self-addressed envelope is practically a necessity. Even then, the consumer questionnaire is a doubtful expedient except under very favorable circumstances.

The important point in phrasing a questionnaire to the consumer is to arouse his interest. If the questions appeal to his mechanical sense or his concern for current affairs, or if in any way he can be kept interested for the moments necessary for filling in the blanks, he may send in the reply. It is practically impossible to keep him absorbed for long, and he cannot be expected to spend much time over a lengthy and detailed list of questions.

He can be flattered, he can be made to feel that his opinions carry weight, and that his reply will be valued. It is human nature to feel pleased at being asked for advice. Fig. 4 shows an example of a consumer questionnaire, sent out by the Nast publications, which received excellent results.

The chances are that men of authority will reply. Such men have an interest in the subject itself. It also may make some difference to them to learn the results of the findings. They will usually wish a digest. As authorities are not ordinarily numerous, the task of preparing a digest is not difficult, being merely a recapitulation of the results of the questionnaire.

The jobber will have practical opinions. He should be asked practical questions. The jobber is not always so intelligent as an expert on the subject and he cannot be expected to answer technical questions. It is also valueless to ask questions which in his opinion will pry into the secrets of his business, such questions, for instance, as "How much profit did you make last year on such-and-such a product?" An interviewer might get this fact out of him and other similar facts, but there are some things people hesitate to commit to writing.

The dealer's opinion may depend in value upon his location.

From To MR. CONDE NAST, Publisher of Vogue

Address 19 West 44th Street, New York City

To help determine whether the type of woman who reads Vogue directs and controls the purchase of food for her family, or whether she allows unregulated discretion to her servants, you will, as a Vogue subscriber, kindly answer the following questions:

1. PLANNING THE DAILY MENU.....

   a. Do you supervise the planning of the daily menu?.....

   b. Do you leave this to your chef or cook?.....

2. THE PURCHASE OF FOOD.....

   a. Do you direct the ordering of food?.....

   b. Do you give your servants discretion in purchasing?.....

3. INSISTENCE ON QUALITY.....

   a. Do you specify by name, or brand, the food you order—such as bacon, tinned soups and meat products, preserved vegetables and fruits—and insist upon receiving exactly what you ask for?.....

   b. Do you permit the tradesman to substitute brands that are not known to you?.....

VOGUE'S HOSTESS DEPARTMENT

We take advantage of the present opportunity to inform you that the "Hostess Department" of Vogue is to be greatly enlarged, with the idea to afford even a better service to our readers. If Vogue had a fairly accurate idea of the actual family and household requirements of its readers, the "Hostess Department" would be doubly efficient. This usefulness could be approximately achieved if you would help by answering the following questions:

1. How many are there in your family?.....

2. How many servants do you employ?.....

3. About how many guests do you entertain each week?.....

4. How can the "Hostess Department" best serve YOU?.....

.....

Answers to these questions will be sincerely appreciated. Your name will not be used in any way.

FIG. 4.—Consumer Questionnaire. (Prepared by "Vogue")

It is, therefore, important to get his name and address. It is well to give him an opportunity to sign his name. Most people hesitate to send out ill-considered opinions over their signatures.

Mailing Lists. The lists of people to whom questionnaires are to be sent depends on the character of the questionnaire and the information which it is desired to elicit. In the first place, it is likely that a list of competitors will be required. The company should be able to furnish a fairly complete one, although in most cases it will be necessary to supplement it by an examination of the commercial registers both of this country and abroad. Through these same registers may be found manufacturers of articles appealing to the same market, although not, strictly speaking, competitors.

Where it is desired to make an intensive survey of the field through dealers, there are several methods. In some cases, where the company sells through jobbers, it may not be known who the dealers are. The jobber may or may not be willing to furnish this information. It will depend on his understanding of the motive for the request. As he is naturally rather apprehensive about his stability, he will hesitate before furnishing a list of his own customers, thinking perhaps that the company might wish these names in order to start a direct offensive of its own. In most cases, however, the jobber can be convinced that it is for his advantage to furnish names.

If it is desired to extend the survey beyond the company's own chain of distribution, directories may be used in the large cities for lists of dealers. In many places the telephone book is valuable where it possesses a classified list, such as the New York "Red Book." The trade papers may be able to help in obtaining names of experts on the subject. The local newspapers are ordinarily willing and able to help in local field surveys. Trade associations frequently have more or less complete lists dealing with their industry.

In addition to such sources as the above, there are dealers in mailing lists who will sell a list on almost any subject. R. P. Rope, of the Larkin Company, estimates that names for their lists obtained in this way cost about $4 per thousand on the average, and it is frequently to the surveyor's advantage to purchase such a list as a saving in time and expense.

The investigator may have to make up his own mailing lists. Suppose, for example, that it is an entirely new product. In such cases, he must use his imagination in thinking up possible users and dealers, or others who might be interested.

Formulating the Questionnaire. The investigator is going to find himself confronted with a large number of problems which demand solution or confirmation. He cannot expect to formulate one questionnaire which will embrace all these points. Indeed, this would be a mistake. He must sort out his questions according to their applicability to his different audiences. Some questions may apply to everyone; some to only one audience. For example, a question on merchandising might be referred to retailers, advertising to advertising agencies, technical questions to engineers, etc. Each investigation will require a number of questionnaires unless the work is to be confined to a field survey and thus entirely to interviewing.

Fig. 5 shows how the *Chicago Tribune* first set down what it wished to determine about cleansers, and then how from these questions made up the questionnaire.

Questionnaires may be sent out for at least two principal purposes, first for eliciting criticism, comment, or opinion, and general remarks, and second, for obtaining statistical information from which tabulated results can be made. A combined form may, in some cases, be used to advantage.

It is not wise to bother authorities with trivial questions. The questionnaire in this case must be more personal, and the language may be technical. An important question to ask authorities on the subject is what sources of information other than themselves they would care to recommend. Frequently exceedingly valuable results are obtained in this way.

The ordinary form of questionnaire is the one which seeks to get an answer of "Yes" or "No," or a figure. This requires the greatest care in drawing up the questionnaire. There must be no ambiguity, and there must be no possibility of misconstruction. Two thoughts must not be put in the same question.

It is frequently necessary, therefore, to eliminate the general and to pick the specific. Although general facts are valuable in any commercial research, specific facts are the only ones capable of being marshalled statistically. These specific data should

CLEANSER INVESTIGATION

We were desirous of determining:

(*a*) Which cleanser had largest distribution and which was the best seller.....

(*b*) Whether the sale of soap powders (such as Gold Dust) conflicted in any way with cleansers, scouring powders (such as Old Dutch) and if so, what percentage of women depended wholly upon soap powders.....

(*c*) Whether Old Dutch Cleanser was increasing or decreasing in sale in the past year.....

(*d*) General comment on cleansers.....

We, therefore, asked the following questions of each dealer interviewed:

(1) What are your five best selling brands of cleansers? Scouring powders, such as Old Dutch?.....

(2) Do you think there are many housewives who do not use cleansers but depend solely upon soap powders, such as Gold Dust, for scouring and shining kitchen utensils, bath tubs, etc?.....

.....

(3) If so, what percentage and why in your opinion?.....

(4) Have you noticed any increase or decrease in the sale of Old Dutch Cleanser in the past year?.....

(5) General comment on cleansers, particularly Old Dutch.....

FIG. 5.—Basis upon which questionnaire was formulated.—(*Chicago Tribune.*)

be of as homogeneous a nature as possible. For example, to determine the average life of a lawn mower, everyone offering an opinion should render it in the same terms. It would be impossible to integrate results accurately if some users stated how many years they had used their mowers, while others reported how many times they had used them, and still others gave their answers in miles the mower had travelled.

Every questionnaire should be as brief as possible. People are likely to be overwhelmed at the presentation or receipt of a large sheet covered with interrogations.

The questions must be in logical order to accomplish their purpose to best advantage. It would appear advisable that if both interviews and letter writing are to be done, a few interviews should be had first and the questionnaire should be constructed on the basis of these interviews.

It is important when writing a question or putting one verbally not to bias the listener by the mere form of the question. For example, if you ask a person this question: "Don't you think it is better policy to buy advertised goods?" most people are going to answer "Yes." This is not a fair way to put the question. It is salesmanship, not research.

A written questionnaire requires perhaps more thought than an interview questionnaire, because written questionnaires are really nothing more nor less than dialogues, and the questions must be sequential.

The questionnaire must be condensed as much as is possible, while still avoiding indefiniteness and ambiguity. Two questions should not remain on the questionnaire where one would serve equally well. No questions should be asked which the persons questioned cannot answer readily from their own knowledge. It does no good to have a question on the list which receives a list of "I don't knows," unless this very lack of knowledge is a thing the surveyor wishes to measure.

It is doubtful policy to include queries which those questioned may not be willing to answer, either because of the way the question is framed or because of the character of the question. For instance, if it were desired to ascertain the average age of the purchasers of a certain product, it might be difficult to put this question in such a way as to elicit correct answers. The

common result of this sort of question is an evasive, false, or facetious answer. If the questionnaire is intended to secure expressions of opinion, then in order to secure the best results it is advisable to leave ample space between the questions. If, on the contrary, the questionnaire is meant to elicit tabular replies only, then the more convenient it is for the person questioned to make a check or a mark, the more likely the investigator is to receive replies.

Quite frequently it has been the custom to send the questionnaire in the form of a postcard. All the recipient has to do is to make a few check marks and drop it in the mail. This form often has excellent results in getting information of the "Yes and No" type from jobbers and dealers. It may be sent periodically to customers who have been educated to return them.

One disadvantage of this type of questionnaire is that it permits little space for question and answer. The form must be tabloid. Where the questionnaire is sent to people not normally interested, the postcards frequently go in the wastebasket.

Writing the Letter to Accompany the Questionnaire. On the contents and form of the letter which accompanies the questionnaire will depend much of the success of the replies. In the first place, the letter must interest. It must be original; not a mere stereotyped request for information.

It should state clearly the reasons for wishing to get this information and why this particular person was approached. It must take the reader into confidence and tell why his opinion is important.

It should not be flippant, but courteous. There need be no ornamentation. The letter should be on one sheet of paper and no longer than absolutely necessary.

There are cases where the letter and questionnaire can be combined.

There ought to be a time limit set on the questionnaire. If there is no such date set, answers usually keep pouring in for weeks. The surveyor should say something like this in the questionnaire, or in the letter accompanying it: "If I receive your letter not later than such and such a date, it will reach me in time to be classified." This will simply be a reminder to send the reply promptly.

Should the questionnaires and letters be written by typewriter, mimeograph, multigraph, be printed, written in longhand, or got out by other process? It is often a question of quality vs. quantity. Where there are very few, as is the case with experts, it may pay to typewrite them. But ordinarily some

DEAR SIR:

It is the small favors in life—those easily done—that are often most highly esteemed.

I am enclosing a postal card which I would thank you to check and mail immediately.

I have so worded the post card that the only thing necessary for you to do is to place a pencil check opposite the phonograph you have in your home.

I am very anxious to have your reply here by Monday.

It is not necessary for you to sign the postal card. If you do sign it, your name will not be used in any way.

Won't you please do this for *Vanity Fair?*

Thank you.

Very sincerely yours,

.....

FIG. 6.—Example of letter to accompany Questionnaire.

quantity process of reproduction must be employed. Generally, the letter should be personal to the extent of having the recipient's name and address filled in on the letter.

Fig. 6 is an excellent example of a letter intended to accompany a questionnaire.

Special Letters. There are always some people to whom questionnaires, for one reason or another, are inapplicable. It is not desirable, at least from the viewpoint of obtaining answers, to make an eminent authority feel he is merely one of a million. It is possible, however, to formulate a letter which may be used for a number of people. Although this letter is in reality a form letter, yet it appears individual to the recipient through his interest in the subject.

An original letter frequently elicits an answer which it is desirable to supplement by further correspondence. A certain part of each day will have to be devoted to the routine of such correspondence, but it is a satisfaction to feel that such letters bring results.

The Interview. Interviewing has decided advantages over other methods of obtaining information, particularly for localized investigations. If, for instance, the investigation were on the market for a food product in a certain city, it would be far better to interview all the principal dealers in that city than to send them questionnaires. It is a certainty that, even at best, only a small percentage would answer the questionnaire, whereas a majority would register their opinions when questioned in person. If, on the other hand, the investigation were national in scope, then a written questionnaire would have to be used, or perhaps a combination of both, by using the interview in certain selected sections, and using questionnaires for the rest of the country.

A properly qualified interviewer can get much information, space for which cannot be provided on the questionnaire. He can obtain opinions and theories and suggestions. He will hear comments on competing products. The degree of accuracy in results is probably greater, providing the interview is satisfactory. Fuller results will be of no particular value in a tabular questionnaire.

As to the number of interviews required, in the city of Indianapolis proprietors of 70 drug stores were interviewed by representatives of the *Indianapolis News*. Fifty were in neighborhood districts, twenty in down-town districts, all sizes and classes. Past experience had proved to this paper that this number of personal interviews was sufficient to give an accurate index to the situation in the entire city of Indianapolis.

Interviewing, however, has many serious disadvantages. To begin with, the results of a series of interviews are likely to be so vague, so general, and so detailed that they do not lend themselves to being classified and averaged. This may be overcome by supplying the interviewer with what amounts to a regular questionnaire form and have him simply jot down the answers in spaces allotted. The drawback to this is that it makes the collector of data merely a mechanical device. Such a method is highly effective in cases where merely tabular answers are desired, but when it is a question of recording shades of opinion, the interviewer must know his subject and be able to converse intelligently.

If the interviewer carries with him a form questionnaire, it has the advantage that it phrases each question in a perfectly distinct manner and there can be no misunderstanding of it. Results are therefore likely to be accurate as far as they go. Fig. 7 shows form used by the *Milwaukee Journal* investigator in a breakfast food survey.

The ideal method of gathering the information by interview would seem to be to supply the interviewer with a short series of definite questions and also instruct him to obtain further information of a qualifying character, and perhaps of a more or less general nature, since no line-up of questions can be made in advance which will cover all special cases, and many of these special cases are exceedingly important as illustrating special tendencies.

One great danger in interviewing is that the interviewer will not maintain a perfectly open mind. By the time he has completed a dozen interviews he has formulated some decided opinions of his own. He has already made his decision as to which way the race is going. He has become partisan. He gets the feeling that he can write the interview without even talking with the man. Although he may not actually do this, he is very apt to lead the man by his questioning, innocently enough, or to hurry him on to make an ill-considered reply. Since the interviewer frequently knows more about the subject than the man being interviewed, the latter is in danger of becoming a listener rather than a talker.

This, at least, is often the case with interviewers who have had their training as newspaper reporters, where a large propor-

Name.....Address.....

Type of Store.....Party Interviewed.....

What brands of breakfast foods do you carry? (Please list first three in order of popularity.)

Oat..... Wheat..... Corn..... Misc.....

What is the reason for these "best sellers' " popularity?.....

.....

What is the biggest selling brand of all breakfast foods?.....

.....

What is the 1st, 2nd and 3rd order of demand for the various kinds of cereals?.....

What is the best selling breakfast food?.....

What appeals most to the customer?.....

Does the customer ask for breakfast food by name?.....

How much breakfast food do you sell a week?.....

What percent of your customers buy

Bulk Rolled Oats..... Package Oats.....

What style of manufacturers' advertising is most helpful to you in creating sales?.....

Will you co-operate with a manufacturer of a breakfast food who will advertise in the Journal?.....

In what Milwaukee newspaper would you recommend a manufacturer to advertise to produce best results for you?.....

General Remark:—.....

FIG. 7.—Questionnaire used in Field Survey.—(*Milwaukee Journal.*)

For the White Goods Department:

1. Do you sell toweling by the yard?
   (*a*) Hand toweling..... (*b*) Roller toweling.....
   (*c*) Dish toweling.....
2. What are the present prices for hand towels made of
   (*a*) Linen.....(*d*) Cotton and linen.....
   (*b*) Crash.....(*e*) Cotton.....
   (*c*) Huckabuck.....
3. What material is the most popular?.....
4. Is there any branded toweling?.....
   (*a*) What brands?.....(*b*) What price?.....
5. Are they asked for by brand name?.....
6. Would you carry a branded toweling that was locally advertised?
7. What is the average yardage sold to a customer?.....
8. Do you sell many whole bolts? If so, what length are these bolts?
9. Are people *making* as many towels as formerly?.....
10. Do you think that a cotton toweling like sample would sell well at 30c a yard?.....
11. Could a demand be created to sell it by the bolt? If so, what length should this bolt be?.....
12. Can you suggest any use except towels for which this material would be good?.....
    (*a*) Table runners..... (*b*) Bureau tops.....
    (*c*) Etc.....

To the Household Linen Department.

1. What kind of towels do you carry? Sizes? Prices?.....
2. Which is your best seller?.....
3. Are you selling more Turkish towels than formerly?.....
4. Is the small guest Turkish towel popular ? Why?.....
5. Is there any branded towel? .....
6. Is it well known to your trade?.....
7. What is the average purchase of towels? 12, 6, 4, 2 ?.....
8. Could branded towels be sold (with adequate advertising) if they were packaged in sealed, antiseptic containers, a dozen to a package?.....
9. To what, in your estimation, does the linen towel—as compared with cotton—owe its popularity?.....
   (*a*) Greater absorbency..... (*d*) Housewife tradition....
   (*b*) Longer life..... (*e*) .....
   (*c*) Greater weight..... (*f*) .....

FIG. 8.—Special Questionnaire for Department Stores.

tion of successful interviews should be credited more to the cleverness and resourcefulness of the newspaper man than to that of the celebrity whose name appears in the headline. But interviews of this sort are a menace in commercial research work.

Fig. 8 shows sample questionnaires submitted by an interviewer to department stores. It is interesting to note that in this case it was important to secure the opinions of two separate departments in the store.

Requisites of the Interviewer. The type of interviewer required will vary somewhat with the character of the people he is interviewing. It will not take a man of very high calibre to interview grocery stores; but it most decidedly will be of importance to have a good man to meet high business executives and discuss matters of business policy.

Under ordinary circumstances the best investigator is not the mechanical recorder, but the man who can observe as well. He should have a background of information upon the subject which he is investigating. Otherwise he will find difficulty in getting anyone to discuss the questions with him.

The interviewer should know how to approach the persons whom he intends to question. In some cases, the questionnaire will obtain an entrée where a second-rate interviewer could not. An interviewer who is also an expert is welcome almost anywhere. This does not mean to imply that the surveyor himself should do the interviewing. It does mean, however, that an intelligent interviewer is a great asset.

The interviewer should be tactful. Frequently he will encounter coolness and even antagonism. This may be due merely to an aversion to imparting information, or it may be due to some preconceived prejudice against the company he represents. He should know how to meet people and to make them regard him with liking.

It may be very difficult for the interviewer to make notes during the conversation. The fear of being quoted may prevent outspokenness, and many people are not at ease while their words are being recorded on paper. The interviewer must be chosen with regard to his having a good memory.

Salesmen as Data Collectors. Theoretically, the salesman is the best link between the company and the trade, and should

be of considerable aid in compiling reports. In practice, however, it has been found that the best "reporters" are not the best sellers. It is not the salesman's business to ferret out pertinent and impertinent facts, but to sell his company's goods. Many

SALESMANS REPORT

NAME L. M. Pond DATE 3/14/—

ADDRESS Madison. ACCOUNT NO. D 132

THE MAN

AGE 40 MARRIED yes. CHILDREN 3 CHURCH Christian Science

OWN REAL ESTATE yes HOME yes BUILDING No OTHER INTERESTS No

RE INSURANCE $30,000. LIFE INSURANCE $15,000.

PERSONALITY genial EXPERIENCE 12 years (see remarks) STANDING good

PRINCIPAL CREDITORS Smith + Clark — Harvey + Co. BANK First National

THE TOWN

SIZE OF TOWN 5000 PROGRESSIVE yes CLASS OF TRADE college - wealthy

RURAL ROUTES seven NEWSPAPERS three NEAREST CITY Chicago.

WHAT INDUSTRIES Furniture factory, Woolen mill, railroad shops.

THE BUSINESS

STORE LOCATION Corner KIND general SIZE 50 X 100

VALUE STOCK $40,000 VOLUME $120,000 PRICES MARKED code

STOCK DISPLAYED fair CONDITION has some old stuff.

FRONT old style INTERIOR modern WINDOWS good

ADVERTISER occasional COMPETITION light

OUR INTERESTS

HOW LONG HAS HE CARRIED OUR LINE? 2 years WHAT COMPETING LINES? L + T

BEST SELLER L + T CREDIT

HIS COMPLAINTS Wants a lower price garment for railroad trade

REMARKS Pond succeeded his father who started the business x

Is working hard to move old stock and to get started on

modern lines x Fixed up interior store: will put in modern

store front in spring x Likes our stuff. Believe he is

a comer and worth watching.

FIG. 9.

companies regard it as a hopeless undertaking to attempt training the salesman to furnish any helpful information.

The sales-promotion manager of the Greenfield Tap & Die Corporation, as reported in *Printers' Ink Monthly*, has made

up a very careful list of information desirable for the salesman to get, and has then proceeded to fill in every possible item before handing it to the salesman. Then, all the salesman has to do is to check off on the report what he finds out. On the basis of information received from these cards, the home division of research and records carries on its work of market analysis.

Fig. 9 is a form got up by the Hammermill Bond Company for salesmen's reports. This is arranged to give information about the customer, the town he lives in, his business, and the competition, with space for general remarks.

General Conclusions. Securing data necessitates a large amount of detail work. Wherever possible, this should be delegated to an assistant. An assistant, for example, should look after the routine interviewing, the acknowledgment of questionnaires, letters, etc., superintend filing, prepare mailing lists, or lists of people to call upon. It means a great deal both to the surveyor and the quality of his work to be relieved of these matters.

The choice of interview or questionnaire as a means of eliciting information is in many cases determined by expediency, that is, the time and money available for the survey. Where the surveyor may exercise his own discretion, he should consider the purpose for which the material is needed, and which method will be the most efficient and adequate to obtain the desired information. Generally speaking, the interview is the preferred form, but in cases where the interest is certain and, therefore, results as sure as can be, the questionnaire may be a much quicker and more satisfactory method.

CHAPTER III

ASSEMBLING AND ANALYZING DATA

Outline

What method should be used in assembling the data?

(*a*) When should it be assembled?
  (1) As it comes in?
  (2) After all replies have been received?

(*b*) How should results be tabulated and filed?
  (1) Will a loose-leaf note book system be adequate?
  (2) How shall information be classified?
    (*a*) Under name of authority?
    (*b*) Under topic?
  (3) What is the value of a card system in this survey?
    (*a*) Will not a mailing list be more practicable for questionnaires?
    (*b*) What is the permanence of the work? Will cards prove valuable later to the company?
    (*c*) Will not a card system be helpful to the surveyor in making outline of final report?

(*c*) How should results be classified for analysis?
  (1) What are the advantages of the recapitulation sheet?
    (*a*) Checks up adequacy of answers.
    (*b*) Information in tabloid form for analysis.
    (*c*) Makes it easier to draw conclusions.

How should the data be analyzed?

(*a*) How may the different sorts of answers to questions be classified?
  (1) Yes and No answers.
    (*a*) How many answers required to make results authoritative?
      (1) On what does this depend?
        (*a*) The size of the audience?
        (*b*) The character of the audience?
        (*c*) Other considerations?
  (2) Numerical answers.
    (*a*) What answers should be rejected?
      (1) The obviously impossible, etc.

(3) The categorical answer.
  (*a*) Their value in obtaining definite results.
(4) Opinions.
  (*a*) Generally of two kinds:
    (1) Those which may be classified numerically.
    (2) General expressions of opinion.
      (*a*) So authoritative that they must be quoted verbatim.
      (*b*) A digest made of the consensus of opinion.

What should be the surveyor's policy in acknowledging correspondence?

(*a*) Does the communication require acknowledgment?
  (1) May need further information.
  (2) May lead to new business for the company.
  (3) May be a matter of courtesy.

What are the factors making against accuracy in estimating?

(*a*) Error.
  (1) Is it compensating?
  (2) Is it cumulative?
(*b*) Bias.
  (1) Is it intentional or unintentional?

How did the surveyor obtain data for estimates?

(*a*) How authoritative should they be?
  (1) His own figures.
  (2) The figures of others.

How should statistics be used?

(*a*) Desirability of having calculations as simple as possible.
  (1) The statistical forms.
    (*a*) The average
      Arithmetic mean
      Weighted average.
      Index number.
    (*b*) The median.
    (*c*) The mode
    (*d*) Other methods.

CHAPTER III

ASSEMBLING AND ANALYZING DATA

Many people can procure facts, or can be trained to do so, but few have the faculty for analyzing and interpreting them. It takes a different set of qualifications to sit down before a mass of material and from it pick out the pertinent data, and to arrange them in such form that the business executive can readily grasp their meaning. Yet the fact that it requires a different type of mind to analyze findings should offer no serious obstacle, since there are few business men who have not associates upon whom they may call for this task. It is safe to say that no market analysis should be a " one-man job." The risk of becoming biased is too great.

The assembling of the data will afford a good test of the adequacy of the preliminary planning. Of course, during the investigation, opportunities will have occurred for collecting exceedingly valuable information not previously provided for; but the main exhibit of evidence will be the result of careful advance preparation in writing questionnaires, arranging interviews, and consulting bibliographical sources.

When all the material is collected, it must be analyzed. Meaning must be derived from the mass of figures, the variant shades of opinion, and the positive but opposite " Yes's " and " No's." It may well be that important decisions depend on the accurate interpretation of all these factors in relation to each other, and the investigator must sit in judgment on them, throwing out this, qualifying that, and coördinating the whole.

Assembling the Data. When replies to questionnaires are coming in, when interviews are reported, or when a large mass of miscellaneous information is collecting, is the time when the value of the filing and entering system will be tested. It is not an easy task to file away answers and interviews, where there is such diversity in the character of the information.

A safe rule to follow is always to put the information into written form as soon as it is obtained. If the investigator talks to this person and then to that person, or reads this book and then that book, and then entrusts these findings merely to his memory, the results will not be satisfactory.

One method which has been found fairly adequate is a loose-leaf note-book system. As material comes in, it may be put in its allotted place, under the product, the industry, merchandising, etc. No particular arrangement can be suggested since the subject matter of every investigation is so different. The surveyor must make his own classification of headings.

No matter how systematic and methodical he may be, he will find that certain sources will not yield the information expected, yet may yield material of value elsewhere in the investigation. For example, if he goes to interview an engineer on alternative methods of constructing a diving helmet, he may get information on new fields for the marketing of diving apparatus instead of the technical information he expected. It is the unexpected findings that often prove of most value.

If he goes to see a customer, he will be given ideas on all sorts of subjects. Then the problem arises of whether the total interview shall be classified in its entirety under the customer's name or whether it shall be split up according to the subject matter and scattered through the report. No set rule can be established on this point, both plans being followed.

In assembling data, it is usual to find that some topics will fill out with evidence and material more readily than others. The advantage of assembling all material as it comes in is that it allows the investigator to observe where he has obtained enough information and where it will be necessary to get additional facts.

It is highly desirable to make an outline of the report before matters have progressed far. This should be most carefully thought out, and adapted to the particular business. As a matter of fact, if the preliminary survey has been made with any degree of thoroughness, it may serve as a guide for the final outline, although doubtless there will be certain modifications.

Card Systems. The value of card systems has been proved already in many lines of business. There is doubt, however, as to the extent to which they may be applied in market analysis.

It has been found impracticable, without too great expense and effort, to make use of cards throughout the entire investigation. It is obviously foolish to make cards for every person to whom a questionnaire is sent, 80% of whom, perhaps, will never reply. For that portion of the work mailing lists are more serviceable.

Letter No.....
Questionnaire No.....
Investigation No.....

Rate sent.....
No. sent out.....
No. replies.....
Percentage replies.....

	Name	Address	Date of Reply	Date of Acknowledgment	Acknowledgment Form Letter No.	Remarks
1						
2						
3						
4						
5						
6						
7						
8						
9						

FIG. 10.—Convenient form of Mailing List.

See Fig. 10 for one convenient form. The information may be checked off on these as replies are received, and other entries made as shown.

As far as the percentage of replies is concerned, the value of a card system depends on the permanence of the work. If it is intended that a large proportion of the persons addressed

INFORMATION GIVEN BY DISTRICTS IS BASED ON THE MAJORITY OF ANSWERS RECEIVED ON QUESTIONNAIRE DISTRIBUTED TO ALL REPRESENTATIVE PRODUCERS AND DEALERS

	New England	N. J., N. Y. & Pa.	South Atlantic	Gulf & Florida	Central	Pacific Coast
Are fishing operations in your district increasing or decreasing in?						
Fresh fish.	Decreasing.	Decreasing, except on Lake Erie.	Decreasing.	Normal.	Decreasing.	Normal.
Frozen fish.	Normal.	Normal.	None.	None.	Decreasing.	Normal.
Canned fish.	Decreasing.	Decreasing.	Increasing	Increasing.	Normal.	Decreasing.
Cured fish.	Decreasing.	Decreasing.	Normal.	None.	Normal.	Normal.
How do dealers regard prospects for winter and spring?						
Fresh and frozen.	Encouraging.	Fair.	Encouraging.	Fair.	Promising.	Fair.
Cured and canned.	Poor.	Poor.	.....	.....	Fair.	Bad.
Have campaigns been conducted to popularize varieties for which supply is sufficient?	Yes.	Yes.	Some literature distributed.	Some literature distributed.	A few successful campaigns.	Some by dealers, one by State.
Who conducted campaign?	The Trade.	The Trade.	U. S.	U. S.	The Trade.	Trade and State.
Did these campaigns increase demand?	Yes.	Some.	Some.	A little.	Yes.	Yes.
Which will increase the consumer's demand for fish, lower prices or better quality?	Better quality, Better salesmanship.	Both.	Better quality.	Better quality.	Better quality.	Better quality backed by publicity.
Do you favor food cookery demonstrations by the Government?	Yes.	Yes.	Yes.	Yes.	Yes, almost unanimous.	Yes.
If Congress fails to appropriate funds for this purpose will you subscribe to a co-operative campaign in your State?	Divided opinion.	No	Yes.	Non-committal.	Yes.	Divided opinion.
Do you favor duty on Fresh Fish?						
Dealers.	Divided.	No.	Yes.	Divided.	No.	No.
Producers.	Yes—not on fish for can.	Yes.	Yes.	Yes.	Yes.	Yes—not on fish for canning.
Do you favor increase or decrease in duties on dutiable varieties?						
Dealers.	Divided.	Decrease.	Divided.	Not interested.	Decrease.	Increase.
Producers.	Increase.	Increase.	Increase.	Increase.	Increase.	Increase.
What percent is the increase over 1919 cost of labor?	14%	27%	16%	28%.	22%.	17%.

Is labor increasing in productivity per man?	No.	No.	No.	No.	Divided opinion.	No.
Is there shortage of labor?	Shortage of American labor.	No	No.	No.	No.	No.
Is there shortage of fish?	Some varieties.	Some varieties.	Some varieties.	Some varieties.	Some varieties.	No.
Are transportation conditions improving?	Slowly.	Better than they were.	Some.	No.	Yes.	Yes.
Do express and railroads give prompt service?	Express fair, Fgt. uncertain.	Uncertain.	Fair.	Only fair.	Better than last year.	Could be better.
Has your business been seriously affected by increased express and freight rates?	Yes.	Yes.	Yes.	Yes.	Yes.	Yes.
Are packing and icing plants for fresh fish up to date?	Some are, some are not.	Yes.	Divided opinion.	Most are not.	Noticeable improvement.	Yes.
Are retail markets in your territory sanitary and attractive?	Generally speaking, No.	No.	Could be better.	Room for improvement.	Some good, majority poor.	Yes, except some in large cities.
Are plants up to date? Canneries. Salteries. Smoke Houses.	 Yes. Yes. Yes.	 Yes. No. Yes.	 Fair. Fair.	 Yes.	 ..... Fair. Yes.	 Yes. Some. Yes.
Are majority of boats sail, motor or steam?	Motor.	Motor.	Motor.	Motor.	Motor.	Motor.
Are by-products utilized?	Not by all.	In part.	In part.	Not to any extent.	No.	In part.
Is pack inspected by competent authority?	In part.	Not to any extent.	Some canneries inspected.	In some canneries.	In part.	In part by Nat'l Canners.
Are there inspection regulations? State. City.	 Yes. Yes.	 Yes. Yes.	 In some. Yes.	 Yes. Yes.	 In most. Yes.	 Yes. Yes.
Are wholesalers and retailers improving their methods?	Slowly.	To some extent.	Wholesalers Yes. Retailers No.	A little.	Are trying to.	Yes, in some localities.
Do you favor the establishment of a Fisheries College?	Yes.	Yes.	Yes.	Yes.	Yes.	One established.
At what point?	Boston.	Boston.	Maryland.	Louisiana.	On G. Lakes.	Calif. [wants one at San Pedro.
Do you favor the present method of handling fish with a pitch fork?	No.	No.	No.	No.	No.	Not used.
Do you favor the employment of American citizens only in the fisheries?	Yes.	No.	Yes.	Yes.	Yes.	Divided opinion.

FIG. 11.—Recapitulation Sheet. (*Fishing Gazette.*)

are to become prospective customers or followed up for some other reason, a card system is, of course, desirable. It eliminates, for example, the necessity of keeping copies of circular letters, since it is simply necessary to set down on the card that Letter No. Blank has been sent on such-and-such a date. In similar fashion, the results of interviews may be noted briefly on the card, if a form questionnaire is not used.

In addition to the service a card system may render as a mailing list, it is most valuable in assembling data, and in the actual making up of the final report. Being extremely flexible, it permits rearrangement of topics in any order desired. It is a very cheap, easy, and practical way of sandwiching in facts, figures, or ideas. Generally speaking, each idea should go on a separate card, and guide cards used to mark the more important divisions.

As to the size of the card, the 3″x 5″ is good because of the ease with which it may be slipped into the pocket. Since this size of card is too small to permit any great amount of information, if there is occasion to write at length on that subject, it is better to do so on a sheet of letter-size paper. This sheet can be given a number to correspond with a similar number on the card, and each is then filed away in its place. When there is need for the record, it is a simple matter to look up the card, get the number and find the sheet referred to, which will be filed numerically.

The Recapitulation Sheet. On the recapitulation sheet are entered the results of questionnaires, and perhaps interviews. The form should be prepared before replies commence to come in. Indeed, there are many advantages in making up the recapitulation sheet at the same time as the questionnaire. In that way, a check may be had on the adequacy of the information sought, while any lapses or gaps in the questionnaire often can be detected by that means.

Whether answers should be entered immediately upon receipt, or whether the investigator should wait until most of the replies are in, depends a great deal upon clerical help available, and on how much haste there is to get it finished. In some cases, as soon as the desired number of replies have arrived, they are entered and classified.

Probably not until the data are to some extent sorted out will it be possible to determine positively whether the search has been

comprehensive enough. The investigator ought never to hesitate, even after recapitulations are completed, to ask himself whether he has enough facts to justify drawing conclusions from them. In actual practice, it is frequently necessary to go out into the field and get additional facts, especially as the most vital ones are in many cases the hardest to corroborate.

Fig. 11 gives an example of a recapitulation sheet prepared by the *Fishing Gazette*, in one of its surveys. Here answers are divided geographically, since the opinion in various parts of the country differed in many cases.

"Yes-and-No" Answers. Yes-and-no answers are the simplest to classify. If one hundred replies are received from women who have been asked whether or not they buy goods by trade name, it is easy enough to say that such-and-such a percentage do and that the remainder do not.

As an example of the value of results, the following were obtained by the Eclipse Manufacturing Company. The question was: Do you sell auto accessories or tires?

Yes	1049
No	544

Percentage selling accessories, 65.8%.

This was very important information as regarded outlets for automobile accessories through other than accessory stores. In addition it was asked whether this was a growing line.

Yes	1003
No	159

Percentage of growing lines 86.3%.

In the first instance the number of Yes's is not overwhelming, but the results of the replies to the second question leave no doubt as to the weight of opinion.

The question of importance here, as is the case with all answers to a questionnaire, is how many replies are necessary to make results authoritative. This number varies with almost every investigation and, in fact, with every questionnaire or group of interviews. It depends first and foremost upon the size of the audience. Usually experts on a subject will be small

in number and replies, though few, will carry much weight. Dealers will be much more numerous, and it will depend on their number, their geographical distribution, the comparative stocks carried, etc. The factors in the case of the ultimate consumer are even more complicated. Obviously, if three people answered, two of whom said Yes and the other No, no weight of opinion could be recorded. There must be a minimum number of replies to lend authority and accuracy to the results. This minimum number cannot be arbitrarily set, but must be determined by the investigator in accordance with the particular conditions.

Numerical Answers. Classifying numerical answers is more difficult since the element of error is likely to be greater. In the Yes-and-No type of answer, the person had to state either one of two things which were true in his opinion. But if you ask in the questionnaire how many times a year he uses an article or how often he visits Chicago (see Fig. 12), or how many times a day he smokes, obviously it is largely a matter of guesswork on the part of the person answering. Some persons guess better than others; but on the whole the people who guess too much and those who guess too little are supposed to counterbalance each other.

Certain answers, however, ought always to be thrown out. For instance, some will report zero number of times, when this is, on the face of it, an impossibility. Other answers will set a figure far above what it could possibly be. It is not safe to include such extremes. Although errors ordinarily compensate each other, yet where there is obvious divergence from fact, it is better to cast the results out altogether. The difficulty lies in deciding where to draw the line. If there is any doubt about it, the best thing to do is to reject it. However, it is a safe precaution to look through the rejections afterward and see whether there is any great amount of agreement in seemingly absurd answers.

Categorical Answers. What do specific answers show? In many cases, direct questions are asked as, for example, those given in Fig. 12, made by the Chicago *Tribune* in its analysis of the Iowa market. The question did not leave to the imagination of the recipient of the questionnaire just what he or she bought, but enumerated specific articles, shoes, furniture, autos, etc. This provided an excellent index to show what out-of-town shoppers bought in Chicago. It is interesting to note that on

the same sheet is given the authority for the figures, that is, the number of questionnaires sent out, their destination, and the number of replies received.

	Mason City, Iowa	Manchester, Iowa	Vinton, Iowa	Total
Questionnaires Mailed	127	200	121	448
Answers Received	53	68	30	151
How often do you visit Chicago?	...	...	...	...
Once or more a year	39	25	22	86
Once in 2 years	...	9	1	10
Seldom	9	19	3	31
Never	...	5	1	6
What have you bought on visits to Chicago?				
Men's Clothing	33	26	11	70
Women's Clothing	38	32	12	82
Children's Clothing	18	17	6	41
Shoes	25	25	7	57
Furniture	23	18	9	50
Musical Instruments	9	4	5	18
Rugs and Carpets	15	19	8	42
Autos	6	6	3	15
Trucks	1	...	...	1
Office Equipment	13	3	3	19
Books	21	13	3	37
Trunks and Suitcases	10	14	3	27
Sporting Goods	15	9	2	26
Confectionery	25	19	9	53

FIG. 12.—Recapitulation Sheet illustrating Numerical and Categorical Answers.—(Chicago *Tribune*.)

Fig. 13, from the same Iowa survey, shows how a specific answer as to what magazines or papers are read allowed the Chicago *Tribune* not only to estimate the extent to which its own publication was read, but also the strength of rival publications.

It may be said that the categorical answer is the most valuable, although, in general, it is the hardest to obtain in many cases. It is the old story of people disliking to commit themselves to anything definite.

Fig. 14 shows how the categorical form was used in tabulating the order of sales of the different cleansers handled by dealers.

NEWSPAPERS AND MAGAZINES READ BY TRIBUNE SUBSCRIBERS	Mason City, Iowa	Manchester, Iowa	Vinton, Iowa	Total
Questionnaires Mailed	127	200	121	448
Answers Received	53	68	30	151
Saturday Evening Post	23	11	7	41
Ladies Home Journal	6	10	9	25
Literary Digest	14	10	8	32
American	5	8	3	16
National Geographic	9	9	9	27
Women's Home Companion	4	3	2	9
Good Housekeeping	2	5	3	10
Review of Reviews	2	5	5	12
Delineator	2	2	4	8
Collier's	5	1	2	8
Pictorial Review	3	3	3	9
Atlantic	9	1	1	11
Harper's	6	4	1	11
McClure's	3	2	....	5
Youth's Companion	3	3	1	7
Outlook	....	3	....	3
McCall's	1	....	....	1
Leslie's	2	....	1	3
Cosmopolitan	1	3	....	4
Century	3	2	....	5
Everybody's	....	....	1	1
World's Work	....	....	2	2
Popular Mechanics	3	....	....	3
Scientific American	....	1	....	1
Women's World	1	....	....	1
Vogue	1	....	1	2
Metropolitan	1	2	....	3
Hearst's	....	1	....	1
Local Papers	29	27	14	70
Farm Publications	5	21	2	28
Religious Publications	5	....	....	5
New York Papers	3	....	....	3
Other Chicago Papers	1	....	....	1
TRIBUNE	140	....	150	...

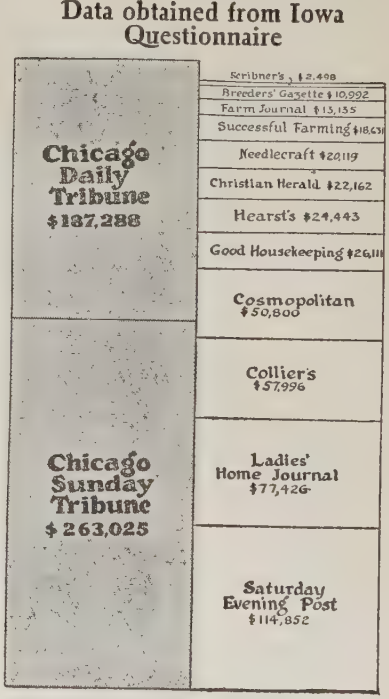


FIG. 13.—Recapitulation Sheet, showing tabulation of replies. Results are shown both graphically and numerically.—(Chicago *Tribune*.)

Opinions. How shall opinions be treated? In addition to the Yes-and-No answers, and the numerical answers, there will be a certain number of general answers, setting forth reasons why articles are liked, motives for purchase, etc. There is usually enough similarity in them for classification.

If the questionnaire makes any allowance for general expressions of opinion, these will have to be handled in a different way.

(1) One alternative is to pick out the opinions which reach similar conclusions, and classify them numerically. Care must be used to classify together only those opinions the authors of which belong to the same class. It will not do to classify the opinions of experts with those of dealers or of consumers. The first opinion is rendered from a theoretical viewpoint, the second from a selling viewpoint, and the third from that of the user.

Brand Name	Order of Sale				
	1st	2d	3d	4th	5th
Kitchen Klenzer	43	4	..	..	..
Old Dutch Cleanser	4	37	1	..	1
Keen Kleaner	..	1	10	1	..
Light House (Armour's)	..	1	4	5	..
Lekko	..	..	3	1	..
Sunbrite (Swift's)	..	..	2	..	1
Ammo	..	..	2	1	..
Polly Prim	..	..	2	..	..
Delight	..	1	..	..	..
Babbitt's Cleanser	..	1	..	..	..
Tubs	..	..	1	2	1
Bon Ami	..	..	1	1	..
Scourene	..	..	1	..	..
Spotless	..	..	1	..	..

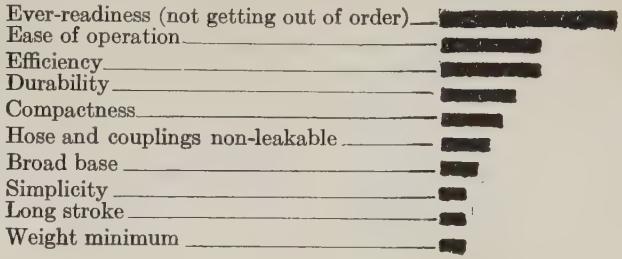
Fig. 14.—Table showing popularity of various cleansers in Chicago Territory.—(Chicago *Tribune*.)

In one investigation, a group of engineers was asked their opinions as to the requisites of an automobile pump. A surprisingly large number answered that the first requirement was "ever-readiness," without this thought having been even suggested by the questionnaire. It was easily possible to classify these answers in the order of their numerical appearance. See Fig. 15. It is only fair to point out that such a consensus of opinion carries more weight than one where the idea is suggested to the mind of the person answering.

(2) Many opinions will be of such a nature that it may seem desirable to present them almost verbatim under the name of the person expressing them. This may be because of the intrinsic merit of the criticism or opinion, or it may be because of the

VIEWS OF ENGINEERS ON PUMPS

Characteristics of Hand Tire Pumps. The chart below shows the relative importance of merits, as tabulated from a vote taken among automotive engineers.



The Particular Type of Pump. About 75% of the engineers expressed themselves as preferring the compound pump—that is, the two-cylinder (or even, in some cases, the three-cylinder) as opposed to the simple single-barrel affair. A number state their belief that there is little to choose between the various types, providing thay are well made.

Engine-Driven Pumps. The unshaded portion of the polar chart represents the percentage of automotive engineers who are disposed to believe that on cars costing over $1500 the engine-driven pump will supersede the hand pump.

FIG. 15.—Tabulation of opinion.

prominence of the authority. General opinions are frequently valuable in that they may bring to light hints and suggestions which had not previously occurred to anyone in the organization.

Opinions are of most value, of course, when their authors are experts on the subject. Frequently, the results of special letters

will have to be placed as a separate exhibit because of the importance of the author's name as applied to the opinion.

As stated before, opinions are only valuable in relation to the amount of authority the person expressing them is endowed with. The technical expert is an authority on his own subject, but his opinions may be of little value on selling. Again, the consumer may know nothing of the materials entering into the product, or of the principles upon which it is constructed, but he may be an authority on what the average user thinks of that product.

There are some opinions which might be valuable except for the danger of prejudice. For instance, there are some industries which are decidedly averse to the introduction of improvements and the opinions of members of such industries would have to be taken with reservations.

Acknowledgments. It is a task to keep track of the correspondence which pours in during the course of an investigation. Answers to the majority of questionnaires ordinarily do not require acknowledgment. For instance, the consumer questionnaire on the face of it does not call for an answer. On the other hand, there are many people, such as dealers and jobbers, with whom the company may desire to maintain especially friendly relations, and these should have the courtesy of a reply. Customers feel that interest is being taken in them, and often have more confidence in the company as the results of the investigation are made apparent to them.

It frequently happens that much special information must be elicited by mail. One letter is not enough to obtain full results, and a series of letters is necessary. It is not ordinarily worth while to follow up people who do not reply to the first letter, although in cases where there is a very limited number to whom to appeal for information, a follow-up letter may be valuable.

An acknowledgment may be the only means of thanking many people for their coöperation, and this small courtesy may be of great help in the event of any future necessity for applying to them.

Assembling the Field Survey. Ordinarily, the procedure for assembling data from reports by field surveyors follows the same method as that for tabulating results from questionnaires. As

Popularity of Animal Fat as Against Nut Margarine.

The unanimous verdict of the dealer is that Animal Fat margarines far outsell nut margarines.

The answers are:

Animal Fat	78
Nut	8
50–50	2
(Animal Fat in Summer—Nut in Winter)	1

Customers' Tendency to Ask for Butter Substitutes by Name.....

Yes	82
Sometimes	4
No	1

The above figures speak for themselves. When asked to what they attributed this only one answer was received, "Publicity."

Division of Consumer Purchases as Regards Chain Stores, Department Stores and Individually Owned Groceries.

Data gathered by the Merchandising Service Bureau of the Milwaukee *Journal* during the past twelve months shows that the grocery business in Greater Milwaukee is divided as follows:

Individually owned groceries	75%
Chain Stores	20%
Department Stores	5%

In the case of butter substitutes, the chain stores' percentage is somewhat smaller, as it was found that this class of store push bulk butter to a considerable extent. Milwaukee dealers are very emphatic as to the manufacturers' co-operation which produces best results for them.

Manufacturers' Co-operation Producing the Greatest Results for Dealers.

Their choice follows:

Local newspaper advertising	35
Coupons (house-to-house or newspaper)	11
House-to-house canvassing	3
Newspaper coupons	3
Demonstration	1
Maintain price	3
Street car cards	1
Premiums	3
Sampling	1

Fig. 16.—Summary of Field Survey Findings.—(Milwaukee *Journal*.)

to the number of interviews required to make results authoritative, opinions differ. In the field survey which the Beech-Nut Packing Company conducted for choosing a carton for their brand of macaroni, investigators were sent to each grocery store in the city and vicinity. These investigators interviewed from 15 to 20 individuals an hour, and about 150 a day. In that case, 500 opinions on any one point were judged authoritative.

Field surveys are made in considerable numbers by newspapers, which conduct them to show the value of local advertising to possible advertisers. Field surveys are ordinarily limited to practical analyses of the opinions of customers, either dealers or consumers. Fig. 16 shows how the results of a newspaper field survey are summarized.

Error and Bias. The investigator, in his everlasting struggle for accuracy, has to contend chiefly with error and bias. Error is usually classified as being of two kinds.

(1) Compensating error. This is the class of error that tends to self-correction, that is, as many mistakes are estimated to be made on one side of the scale as on the other, so that the two will balance each other. Ordinarily, when results are representative of the whole, the average will show the accurate figure. Compensating errors are particularly apt to occur in numerical replies, where the extreme numbers will tend to average themselves.

(2) Cumulative error. This class of error must be discovered and allowed for if there is to be any sort of accuracy in results. For instance, until the appearance of a new census, government statistics are based on figures obtained, in some cases, too long ago to be accurate. Some correction must be made for this inaccuracy. If present figures are used as a basis of calculation and are wrong, then the results will be wrong. Allowance must be made for growth in population and other factors. Frequently trade figures may be used to check up government results.

The ordinary case of cumulative error is the short yard-stick or the short measure, which make the results cumulatively more erroneous.

Bias may be intentional or unintentional. It is possible to allow for the latter, as in the case of a company where all members

are prejudiced in favor of, or all against, certain policies. It is much harder where the attempt to change results is deliberate. Bias is met with everywhere. It may be the natural prejudice of the corner grocery store against the more prosperous chain store, or it may be tinged with the bias of a former customer with fancied or real grievance against the company.

Estimates and Generalizations. Every investigator is continually making estimates. He must place the market for his product at a certain number; he may need to estimate the average price for it, or the most popular size on the market. In fact, estimating forms a large part of his work.

Much of this estimating is based on results obtained through original research; much also is based on results of the investigations of others. It is necessary for him to have authority for his own deductions. But it is also necessary to examine the authority for the statements of others. People are too prone to take for absolute truth anything written or printed, regardless of whether they are familiar with the sources. But, as shown previously, in the case of the government census report, allowance must be made for changes in authorities. In fact, few statements or figures advanced by other people, which he adopts as his own sources, are absolutely correct at the time of his using them. They are too likely to be out-of-date. Conditions change so rapidly that it is almost impossible to make anything absolutely accurate. Thus even in accepting the estimates of others, he may have to make allowances for their accuracy.

A prominent trade journal, in calculating the amount of belting used annually in the lumber industry, estimated that in a steam driven sawmill of 100,000-foot capacity in a 10-hour run approximately 2,270 feet of belting was needed, and repairs to this approximated 15% a year. In addition to this, belting was used in the filing room with replacement of 3% and in the planing room with replacement of 40%. Using the government figures for sawmills, this trade journal estimates there was in use at least 5,710,390 lineal feet of belting, and also that there is 1,144,183 lineal feet of belting replaced each year. This only pretends to be an estimate, yet it is easy to see many loopholes for error which might put the estimate many thousand feet out of the way.

In estimating the number of prospective customers for tobacco, the following method was used by the Milwaukee *Journal:*

Population (1920) of Wisconsin	2,631,839
Percentage of men	50.8%
Total men	1,331,710
Percentage over 18 years	68%
Total prospective customers for tobacco	772,391
Percentage of smokers	91.2%
Total smokers	704,420
Percentage of population of total Wisconsin in Milwaukee-Wisconsin Territory	54%
Total population	1,370,000
Percentage of men	50.6%
Total men	739,600
Percentage over 18 years	58%
Total prospective customers for tobacco	399,492
Percentage of smokers	91.2%
Total smokers	364,336
Population of Greater Milwaukee	600,000
Percentage of men	50.6%
Total men	303,600
Percentage over 18 years	61%
Total prospective customers of tobacco	185,196
Percentage of smokers	91.2%
Total smokers	168,898

Accuracy in estimation will depend on two things: First, whether the figures are correct, and second, whether the judgment of the surveyor himself is well balanced. Under any conditions, an estimate should not be regarded as final. It is only what to the best of the surveyor's belief and knowledge of the facts seems true.

Methods of Statistical Presentation. An understanding of the elements of statistical method is valuable, although there is danger in becoming too technical in interpreting figures and facts. Yet when facts can be marshalled statistically, the result is undeniably more convincing. The reader sees that these things must be so, because he has the evidence before his eyes.

The arithmetic mean is one of the least complicated and most commonly used statistical methods. It is obtained simply by adding the items in question and dividing the total by the number of items added. The result in many cases will be representative

of the whole. In addition to its simplicity, this method has the advantage of showing the variation of each factor from the average. The government uses this method extensively, and particularly in obtaining per capita consumption figures.

Care must be taken in using the arithmetic mean that all the items figured are of the same nature; also that there is no excessive variation one way or the other. If so, the average would not be representative. For example, if the wages in a company were averaged, it would probably be true that the salaries of the executives might outweigh the combined wages of the workmen, yet the average remuneration would not take this into consideration.

Where some items are of much greater importance than others, it is better to employ a modification of the arithmetic mean, such as the weighted average. In this form, every item is multiplied by a factor which will give it its proper relation to the other factors.

An index number, frequently used by statistical bureaus, is a form of weighted average by which such different things as wages, purchasing, and sales may be reduced to a common denominator. These index numbers are commonly used to show broad economic tendencies over a period of time, such as the well-known Bradstreet's weekly indexes.

In addition to these methods, there is the median, which is determined by arranging things of the same class in a definite order of progression and taking the middle one, or, if there are two middle ones, their arithmetic average. The common illustration of a median is a row of men arranged according to height. The middle man is the median, and his height will be typical of such a group. This median, to be representative, must occur at the point of concentration. If the median is radically different from the surrounding members of the group, it is not representative.

The mode represents the greatest number of experiences, that is, it is the point of greatest concentration in a series arranged according to some particular standard. Its disadvantage may lie in the fact that there may be more than one point of concentration.

In using statistics of any kind, the surveyor should remember

that the purpose of statistics in market research is to illustrate points about markets, and not to demonstrate the surveyor's knowledge of statistical method. The simplest form which will serve the purpose will in most cases prove the best. In addition, he should remember that statistics do not take into consideration the individual case, but only the group. In the final analysis, his problem is individual.

Conclusions. In assembling and analyzing the data, the surveyor's own fitness for the work is emphasized. After all these data have been collected, what is he going to get out of them? What results is he going to obtain? In what way shall he classify all this material to bring out his conclusions in the most logical and convincing fashion?

The keynote of this section of the work is authority. Is there enough definite and concrete weight of opinion so that he may conclude that such-and-such a result is sure?

The method of presentation will largely be determined by the method of analyzing. If the material is not analyzed well, it cannot be presented well. No excellence in style will make up for poorly assembled and analyzed material.

CHAPTER IV

PRESENTING THE DATA

Outline

How should the report be written?

A. What is the function of the outline?
   1. To determine the form of the report.
   2. To make the form logical and convincing.

B. What are the fundamentals of a good report?
   1. It should not be too long.
   2. It should contain
      (*a*) A statement of the plan of action.
      (*b*) A list of those interviewed and why.
      (*c*) A list of those to whom questionnaires were sent and why.
      (*d*) Copies of questionnaires with results of each one.
      (*e*) Authority for all statements.
   3. It must be impartial.

C. How should the report be made attractive?
   1. The binding.
   2. Good paper.
   3. Wide margins.
   4. A table of contents.
   5. A bibliography.

D. What should be the form of the report?
   1. The style.
      (*a*) Should be interesting.
      (*b*) Neither heavy nor flippant.
      (*c*) Correct grammar and spelling.
      (*d*) Written to suit audience.
      (*e*) No superfluous material, padding, etc.
      (*f*) No involved passages.
      (*g*) All general statements should be backed up by facts.
      (*h*) Wise to classify material under frequent headings.

How should the report be illustrated?

A. What are the advantages of illustrations?
   1. Figures more easily grasped in chart form than in tables.
   2. Effect is gained quicker.
   3. Impression is more lasting.

D. What are the requisites of illustrations?
   1. Should be as simple as possible.
   2. Each chart or picture should be understandable in itself.
      (*a*) Wise to include numerical data on chart.
   3. Advantages of color in charting.
   4. Any unusual variations should be explained.

C. What are the forms generally used in illustrating reports?
   1. Geometrical forms.
      The graph.
      The bar chart.
      The circle.
      Other geometrical forms used to compare figures, tendencies, ratios, etc.
   2. The map.
   3. The organization chart.
   4. Pictures, photographs, etc.
   5. Tables.

D. How should charts be reproduced?
   1. Blueprinting.
   2. Photostat.
   3. Pen and ink.

The Conclusions.

A. What are the requisites of the conclusions?
   1. Accurate interpretation of facts.
   2. Concise.
   3. Brief.
   4. Impartial.

B. Where should conclusions be placed?

C. What are the differences between conclusions and recommendations?
   1. A conclusion merely based on facts as shown in survey.
   2. A recommendation is a solution of difficulties according to personal judgment of surveyor or some authority.

D. The value of interrogatory suggestions on points not investigated.

CHAPTER IV

PRESENTING THE DATA

However carefully and accurately the work of collecting the data may have been carried out, it is the actual presentation of that material in readily understandable shape that will measure its success. It is not enough that the surveyor has convinced himself; he must convince his audience. He must prepare and illustrate his material in such a way that others will see the conclusions revealed by the facts. He must keep in mind that these others have not had his intimate contact with the subject.

Presenting the data divides itself into three sections, first, writing the report; second, illustrating the report; and third, formulating the conclusions. The subject matter of the investigation, the time allowed for the report, the scope and the thoroughness with which the field has been covered, will all exercise modifying tendencies. The writer will have to solve his own problems of arrangement, illustration, and any other details arising in connection with this part of the work. This much he should remember: that a mass of details and facts, no matter how complete and excellent, cannot make a report good unless these facts are interpreted and set forth in conclusions. Conversely, conclusions and charts are misleading without ample data to support them.

Writing the Report. The actual writing of the report presupposes an outline. It is not possible for anyone short of a genius to sit down and compose offhand a logical, sequential, and convincing report of the facts which have been gathered. An outline is necessary. All previous steps in the investigation supposedly have been leading up to the writing of the report, the report being the usual form of presenting the data.

No outline can be so standardized as to suit every investigation. For instance, surveys frequently take the form of field analyses which consist of a summary of interviews. Many newspapers

specializing in local investigations, the majority of which are food products, make a practice of including every report in full, with questions and answers. Reports range in scope all the way up the scale to those which attempt to cover the entire field of the company's activities.

One outline used frequently in short investigations which is very simple yet effective, and possible of presentation in very attractive style is as follows:

(1) A copy of the questionnaire or questionnaires.
(2) A short description of the purpose of the investigation.
(3) Brief statement of how and where answers were obtained, that is, to whom questionnaires were sent, how many were sent, and how many replied.
(4) Each question taken up in turn, occupying perhaps a page. On this page may be put circle chart showing percentage of replies to that question, table setting forth results, discussion of various answers with any needed interpretation, etc.

Another outline method for a report was used in a belting survey of the Philadelphia market.

(1) A description of the city of Philadelphia, and particularly its industrial development with actual and possible users of belting.
(2) General summary of the consumer end. The scope of the survey, who buys belting, the buyers' knowledge of belts, buying policies, stock carried, tendency towards different types of transmission installation, etc.
(3) The specific product, the styles, brand names, and general description.
(4) The methods of distribution, particularly those of competitors, the big competitors, and lists of the most progressive customers, what gets new customers, what holds old ones.
(5) Producers. The company itself, its reputation, business policies, engineering service, advertising, publicity, and direct mail problems as compared with other producers.
(6) General selling factors, confidence in the maker, quality, discounts, delivery, repair service, trial offer with guarantee, salesmanship, timeliness of salesman's call, etc.

Still another type of outline is the following, used in the investigation of an automobile accessory:

(1) Conclusions.
(2) The extent of the market.
(3) The requirements of the market, giving opinions of consumers, jobbers, and engineers.

(4) Competition, with lists of competitors and competing products, with description and price.
(5) The merchandising problem, publicity, distribution, and sales.
(6) Possible new lines for the company to manufacture.
(7) Additional equipment desirable. An analysis of present cost of production with probable results of other methods of manufacture.

The Fundamentals of a Good Report. The report should not be too long. There is no use in giving a man too large a volume of reading matter, because he will not read it. If it must be long, it is better to hand it to him in instalments. Almost every report may be divided in some way so that it may be completed in sections.

Every report should state in some form at the beginning the exact plan of action in getting it up, not only the specified purpose, but the actual machinery of the investigatory work. That is, it should state who was interviewed, why they were interviewed, copies of all questionnaires with number of answers received, etc. This serves as evidence of the authority with which the investigator speaks.

The writer should not put himself forward. The report is not the place for expression of his personality. Any opinions of his own obviously should be predicated upon the most authentic data.

The writer should bear in mind that his judicial attitude must always be maintained. Entering the lists on either side will make him a partisan, and a partisan cannot judge facts fairly. It is true that the results of gathered facts will frequently point to such obvious conclusions that there can be no possible doubt as to the result. For instance, where 99% of the replies are in favor of one result, the conclusion will be self-evident. There is no partiality in the writer's strongly accentuating the large preponderance in the weight of such evidence.

Attractiveness. If the man for whom the report is intended is vitally interested in the subject matter, he will probably care little for the attractiveness with which it is got up. But the average person, inclined at best to be sceptical, will not give it due attention unless it offers some inducement for perusal.

It is easy, to be sure, in the attempt to render a report readable, to make it a picture book, and thereby destroy its serious purport.

A market report is not for entertainment. Irrelevant matter, whether photographs or written material, will prejudice the man who pays the bills. Nothing should be introduced as mere padding, no matter how attractive it may make the report appear. All material should be analyzed for relevance, both as to inclusion in the report, and inclusion in any given section.

Where three or four copies of the report are made, it is a good plan to have half of them bound and the others arranged in loose-leaf form, with tabs on the edges of the principal divisions. The bound copies will do for circulation around the office, while the loose-leaf copies will serve for future use, when corrected data may be inserted in place of the old material. The applicable life of a report is ordinarily so short that provision should be made for additional future reports on the same subject. This loose-leaf form will preserve the permanent data (and much data are fairly permanent, of course), while it will allow the insertion of further material, whether new or corrected matter. A survey, once started, is cumulative. It does not end with the actual writing of the report, for material will keep coming in long afterwards. Interest has been aroused which is slow to subside, and this should be utilized.

The paper on which the report is written should be of good quality. By using thin bond paper, a larger number of carbon copies may be obtained.

An index will not ordinarily be worth while. A table of contents, however, is practically a necessity. In short reports it is quite possible to combine the table of contents with a very brief summary of material, so that anybody glancing through the table of contents will be able to obtain a very good idea of the subject matter of the report. In other words, the gist of each section is summarized in a single sentence.

The appearance of the report will be due in large measure to the mechanical excellence of the typing. A stenographer should be chosen capable of neat, accurate, and fairly rapid performance.

Wide margins, both at the top and bottom, and also at the sides, lend attractiveness to the report. No devices should be used, however, which will distract attention from the text.

It is seldom considered good policy to use single-space typewriting. It makes the report hard to read, it is difficult to cor-

rect without smudging, and experience has shown that the average individual has a tendency to skip single-spaced text. In any event, it is not the form to use where emphasis is required.

There is no harm in typing one part of the report in advance of the others. Later, the whole may be assembled and pages numbered with an automatic numbering stamp.

Somewhere in the report, and preferably in a convenient place, there should be a bibliography of authorities consulted, books read and referred to, etc.

Form of the Report. Unless the report is interesting, it will be hard to find readers. The style in which it is written has much to do with the interest. The treatment should not be heavy, nor yet should it be flippant. A report of this kind is not the place for smartness. The investigator should take pains to see that the English is correct both as to grammar and spelling, for these things are an index of the care which has been taken in the report.

It is advisable to divide up the report into comparatively short sections, classified under suitable headings. This makes it easy for the reader to understand, and also to find any particular parts in which he is specially interested. It is possible, of course, to carry this process of division so far that the report becomes merely a succession of A's and B's. This has just the opposite effect from that intended, since too many captions may destroy continuity, leaving the report with no swing to carry it along.

The surveyor is sometimes confronted with the problem of whether he shall write the report precisely as the data demand or whether he must tone down the subject matter to meet the approval of his readers. Many business men have set ideas, to which the market report may run counter. While it is desirable to write without fear or favor, yet it is important to couch the language in terms which shall not be offensive. Much more will be accomplished by leading the reader than by forcing conclusions down his throat.

In writing a report for public consumption, as is done occasionally, there is more opportunity for color. In the event of the report's being used by the public, it is necessary to define technical terms. The vocabulary should be simple, not ornate.

Too much unimportant matter should not come at the begin-

ning. If general matter must be included, it is better to place it towards the end of the report. Business men do not care to waste time fumbling through descriptive material when they are looking for the substance of the report.

All general statements should be backed up by facts, and these facts should be credited to the proper authorities. If a dogmatic statement appears in the report without any authority attached, it loses its weight. Who says a thing is almost as important as what is said.

Illustrating the Report. The advantage of any pictorial method of presenting facts, over a mere statement, or perhaps a tabulation, is that pictures are more readily grasped by the mind. Any report which neglects the available and simple methods of pictorial representation, either by charts, maps, or photographs, is thus likely to be soon forgotten. Fig. 17 shows how the *Electrical World* has illustrated the growth in central station customers. Mere figures, though impressive, could never have conveyed the idea in such concrete fashion as is done in the illustration.

It is easier to comprehend conclusions which are exemplified by charts. A business man can visualize statements in the report almost instantaneously by glancing at a picture. There is no necessity for making complicated charts. Almost everything which the investigator wishes to show can be displayed in simple form on simple charts. It is wasted effort to make up charts which no one but an expert could decipher.

The ordinary person has difficulty in visualizing figures. A table to many is simply an aggregation of digits. But the minute those digits are expressed in pictorial form the differences become apparent.

The use of color where economically possible gives better contrast in certain pictorial work. High cost of color printing may prevent its use in printed matter, but, in the ordinary typewritten report, it is possible to use contrasting wash colors. Black and white, or cross-hatched work, is not always so effective.

The title to each illustration should be so clearly understandable and complete that there should be no need of searching through the text to see what it is all about.

In certain statistical work, absolute accuracy is necessary.

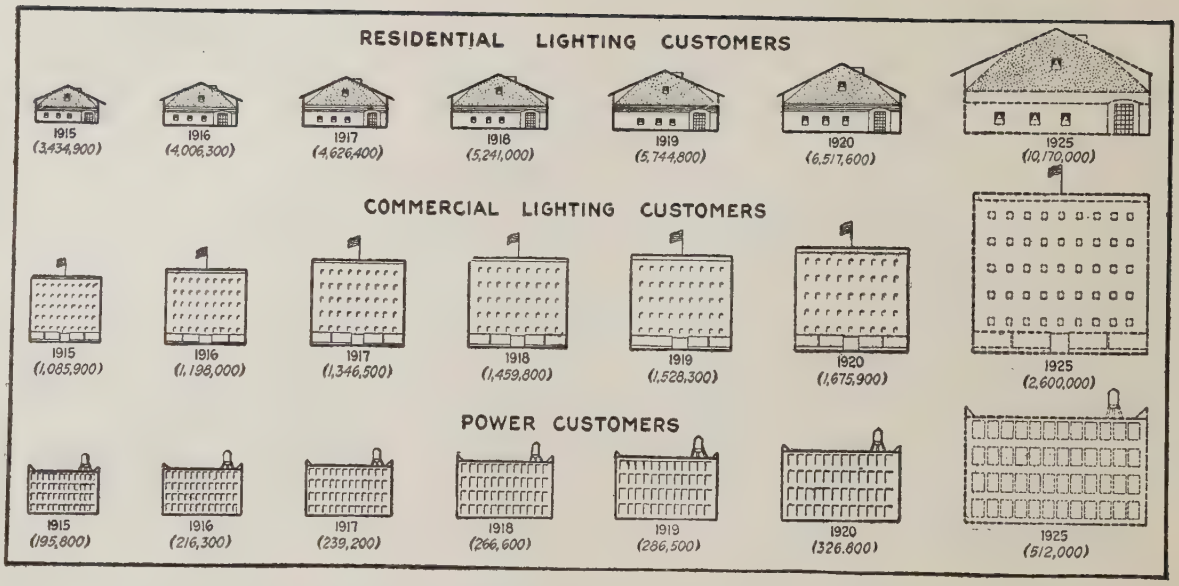


FIG. 17.—Growth in Central-Station Customers

Analysis of reports from 65 per cent. of installed capacity of industry indicates that electrical customers have increased form 4,716,600 in 1914 to 8,520,400 in 1920, 81 per cent. Power customers show increase of 67.2.

Charts used in the market survey, however, are often based on approximations.

An excellent rule to follow is to include the numerical data on the chart wherever possible. This allows the reader to make instant reference to the figures if he wishes further information. It is also a good plan to put in a legend or foot-note at the bottom of the chart to explain any unusual variations.

The Graph. The graph is one of the best known and simplest methods of showing comparisons over a period of time, and an excellent way to show and compare tendencies. For instance, the graph will show on the same sheet of paper the growth of the company's business and the growth of the industry. The result will be much more impressive than the two tables of figures placed side by side. The graph may be used to show price tendencies and fluctuations, and various other things. In fact, the surveyor will be able to use the graph wherever there is a succession of figures stretching over a period of time, provided that the figures are given for the same thing in each instance.

The Bar Chart. This is the form Brinton proposes as the best to use for showing comparisons between figures. In his estimation it is better than the curve or any of the other geometrical forms, the circle, the square, etc., in that he believes it is easier to judge values by it.

Other Geometrical Forms. The circle chart, divided into sectors, is the most commonly used chart and the most familiar to the public. In spite of Brinton's disapproval, it makes a very plain and striking appeal to the eye, especially if done in colors. The sectors should not be so small as to lose proportion. It is an excellent method of showing component parts or comparisons of costs, etc.

The rectangle and other geometrical forms are often used. The surveyor must suit himself in choosing the form of illustration. In some cases figures such as men, money bags, or cattle are used to illustrate different sizes, productive powers, consumptions or rank in industry, etc. Fig. 18 shows growth of industrial load of electric power, by graphic portrayal of the motors, meters, etc. Such illustrations may be used if the report is to be used for sales purposes or where a more scientifically accurate presentation would be over the heads of the readers.

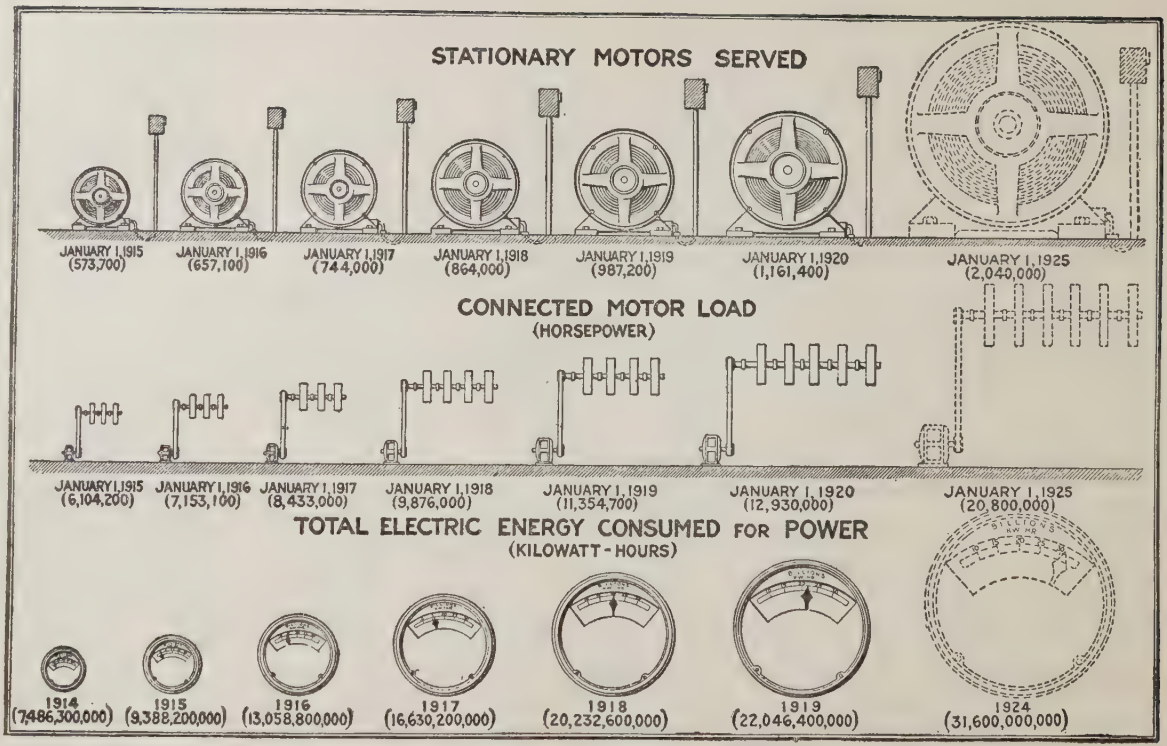


FIG. 18.—Showing use of Symbols to Convey idea of Growth of Electrical Power. (*Electrical World.*)

The Map. When studying the market, it is simple to make use of the geographical map to show where sales are best, where competitors have a strong hold, the location of dealers and jobbers, etc., etc. The different sections of the country can be colored, marked in black and white, or dots used to denote frequency. One New England bank has made a map of New England according to industries and placed a certain distinctive symbol wherever that industry predominated, a mill for a mill center, a fish for a fishing port, etc.

Fig. 51 shows how the map may be utilized to represent pictorially the relative area of each state as proportional to the population.

The Organization Chart. Wherever scientific management has attained a hold, the organization chart is well known. It does not have to be used for showing the interrelations of the company, but can be used for other purposes as well. For instance, the distributive process, see Fig. 44, may be shown in this manner with excellent effect, indeed much more graphically than can be done with mere words.

Pictures, Photographs, etc. Photographs add a great deal to the report, as far as the appearance is concerned, but whether the pictures add to its value is another matter. In some cases they undoubtedly do. In studying competition, it is often feasible to make up a selective group of the competing products, paste them on a sheet of paper, and photograph or photostat them for the report, as a means of illustrating comparisons, criticisms, or suggestions.

If the company is intending to put in new equipment, or if the report tends to show that new machinery is necessary, full description, accompanied by photographs, should be submitted with any such recommendation.

Tables. Wherever there is a chart, there should also be a table. Charts should not be presented without the table, and furthermore, the table should be as close to the chart as possible, if not actually on it.

Tables are sometimes hard to grasp, especially if the amounts are very high. If they run up into six figures, it may be wise to omit the last three altogether, or to make them ciphers for ease in presentation and understanding.

Each table should be a unit; there should be no extraneous figures in the column. It may be advisable to accompany the actual figures with percentage of increase or decrease. It is better to have two tables than one rendered too complicated by multiplicity of detail.

Methods of Reproduction. If more than one copy of an illustration is to be made, and this is usually the case, plans for drawing it should be laid in advance. If the graph is drawn on ordinary white paper, a transparentizing solution may be obtained which will permit of blue prints being made from it. Or the graph may be drawn on tracing paper or cloth in the beginning.

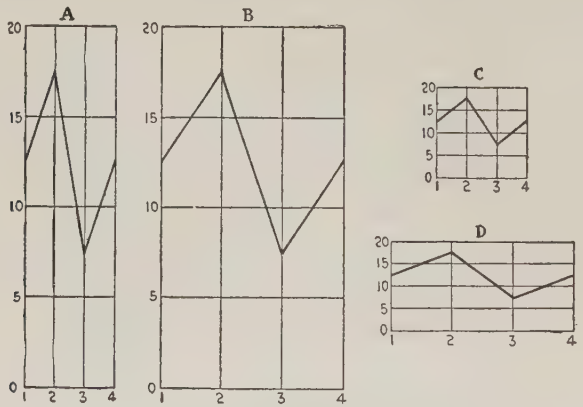


FIG. 19.—Distortion Caused by Lack of Standardization in Chart Forms. (Ernst & Ernst.)

All charts should, if possible, conform to the regular size of the report paper. Odd-sized charts are of no particular advantage and are awkward to handle in the report.

Illustrations should not be bunched in one place but should be placed as near as possible to the points they are supposed to illustrate.

There is little question but that it is better to use pictorial methods, because they are much more easily grasped and retained in the mind. On the other hand, they are more expensive, and take time and trouble. The man who is getting up the report for his own purposes will not need to go to the same labor for illustrating that the advertising agency might.

Care should be taken that charts showing similar tendencies and curves should be drawn on the same scale. Fig. 19 illustrates distortion caused by charting the same figures to four different scales.

The Conclusions. It is safe to say that every report, no matter how short, should have a résumé of the entire content, so that the average reader may get an idea of the whole proposition in half an hour. This résumé will be largely a summary of conclusions reached. In a way, it is a test of the success of the report. In these few pages will be crowded the results of days, weeks, and perhaps months of effort. These conclusions should be brief, compact, and strictly to the point. It is well to place each thought in a separate paragraph. Each conclusion, if possible, should prepare the way for the one following.

It is upon these conclusions that the company will supposedly act. The conclusions must be an exact mirror of the facts. This is their first requisite.

The Policy of the Conclusions. It has proved beneficial in some cases to let someone unfamiliar with the report read it and write the conclusions as he sees them from his perusal. It is always interesting to have this done, and can do no harm, and there is much opportunity for benefit, since the surveyor may find himself with some new ideas as a result. The majorty of minds seem to be critical rather than constructive, and although they may not be able to give a clear exposition of any subject themselves, if something is submitted to them, they will immediately be able to pick out the flaws.

The following conclusions were drawn from a study of the cotton toweling industry, and although brief, contain the gist of a long report:

There are three classes of toweling purchasers: institutions, certain professions, and housewives.

The housewives of the United States represent an annual total buying potential of 146,400,000 yards. This combines markets for linen, Turkish, "union," and cotton towelings.

Linen leads, chiefly by virtue of tradition, prestige, and durability; Turkish is second, and cotton a poor third.

The market potential for cotton toweling is approximately 27% of the total, or 39,538,000 yards.

There is a preference for buying all toweling made-up rather than by the piece, although current reaction may alter the ratio somewhat.

Toweling is a staple commodity and only slightly seasonal as regards the consumer.

Fig. 20 shows the conclusions of the field survey conducted by the Minneapolis *Tribune*.

It may seem rather a backhanded manner of progression to put the conclusions immediately after the table of contents, but this appears to be the preferred location. It is what the business man or the casual reader will wish to examine first, because these conclusions are brief and pithy, and contain the gist of the report.

General Conclusions. There is a difference between conclusions and recommendations. The first are findings based on facts, the second are the author's interpretation of those facts as related to the company. To follow out a conclusion may be either impossible or inexpedient as far as the company is concerned. For this reason, it is sometimes advisable for the surveyor to append recommendations in which he embodies either his own interpretation or that of some authority. For instance, a conclusion may simply lead to the point that new equipment is needed, and needed badly, since it is the logical time to increase production, and take advantage of market opportunities. A recommendation would take cognizance of the fact that the company was not in a financial position to go ahead with additional expenditures, and might recommend a compromise, such as renting additional productive capacity, etc.

A conclusion should not be capable of alteration except insofar as the facts upon which that conclusion is based should change. A recommendation is a personal solution of a problem presented in a conclusion.

It will now be interesting to compare the final conclusions with those reached in the preliminary report, and to see how closely the two coincide. The preliminary findings may, in fact, suggest something that had been omitted in the final conclusions, and which should have been included.

No matter how far our investigation may be carried, there will still be a great many points not disposed of. The deeper the investigation goes, the more avenues of research will be opened. Accordingly, there will always be many matters that still remain unsolved. *Apropos* of them, it is a good plan to set them forth in direct question form, making a sort of interrogatory series of

WASHING MACHINE SURVEY
COVERING THE MINNEAPOLIS MARKET
PREPARED BY THE MINNEAPOLIS "TRIBUNE"
SERVICE DEPARTMENT

The population of Minneapolis is 380,582.

There are 88,000 homes in Minneapolis, and 95,000 families. The number of English-reading homes is 70,000.

The average annual earnings of each family is $2,500. The total annual savings deposits of Minneapolis is $70,000,000 and the total number of depositors 245,000.

There are 60,000 homes wired for electricity.

The number of washing machines now owned in Minneapolis is 12,000, apportioned as follows:

Number of electrical machines	7000
Number of hand-power machines	4000
Number of water-power machines	1000

The leading makes of washing machines on the Minneapolis market are:

Daylight
Gainaday
Thor
A. B. C. Washer
Judd
Liberty
Western Electric
1900 Washer
Eden
Easy
Mola
Locomotive

The principal advertised makes are Daylight, Gainaday, Thor, and Judd.

Prospects: There are 149,800 persons patronizing each week 105 laundries of Minneapolis. Of these 50 are commercial laundries doing an average of about $4,000 a week in business with about 2,000 customers each. The balance are Chinese laundries and wet-wash laundries.

There are 57 dealers in electrical appliances.

There are 97 retail hardware dealers who are prospects as washing machine dealers.

FIG. 20.—Tabulation of Conclusions of Field Survey.

suggestions. This is valuable, partly at least because it stimulates the reader, and partly because, after all, one of the greatest benefits of a report is not the direct information which it provides, but the indirect value of the suggestions and ideas which it excites.

CHAPTER V

ORGANIZING THE MARKET SURVEY

Outline

Is the company in a position to carry on this work itself?

A. What would be the advantages?
   1. Would it make the work continuous?
   2. Would it cost less?
   3. Could the work be combined with that of other departments?
   4. Do the company's files contain much valuable information?

B. What would be the disadvantages?
   1. Is the company too small to afford a survey department?
   2. Is there marked hostility towards the idea of such a department among other departments?
   3. Is the company so situated that the work could be done more advantageously by an outside agency?

C. What would such a department cost?
   1. What is the scope of the work?
   2. How much interviewing must be done?
   3. How many office appliances are available?

D. What are the qualifications of the research director?
   1. Does he understand practical business problems?
   2. Has he a grounding in economics?
   3. Has he imagination and interpretive ability?
   4. Is his mind analytical?
   5. Has he any knowledge of statistics?
   6. Can he present these statistics pictorially?
   7. Has he the ability to meet people?
   8. Does he possess tact?
   9. Is he a good letter writer?
   10. Has he the scientific spirit?

E. How many assistants would be required?
   1. Clerical assistance.
   2. Interviewers.
      (*a*) Can any of the office force be drafted for service at need?
      (*b*) Is it possible to use women for interviewers?
      (*c*) Can the sales force be utilized to gather information?

F. What should the relation be between research and other departments?
   1. Is the research department likely to coördinate the other departments?

G. What office equipment is desirable?
   1. An adequate filing system.
   2. Multigraph, mimeograph, automatic typewriter, or some other means of getting out questionnaires and form letters.
   3. Adding machines, slide rule, etc.
   4. Machine to stamp envelopes, etc., etc.
   5. Reference books, mailing lists, etc.

H. Under whose name shall the work be done?
   1. Is it wise to use the name of the company?
      (*a*) Would it prejudice results?
      (*b*) Should company's address be used?
   2. Necessary to use company's name in field work?

I. Where ought department to be located, at sales offices or at plant?

J. How long does it take to make a survey?

What other organizations are qualified to carry on market surveys?

A. The advertising agency.
   1. The advantages, what are they?
      (*a*) A protection to itself and its client.
      (*b*) A necessary preliminary to accurate, scientific advertising.
      (*c*) A form of service used as a business getter.
   2. What are the disadvantages?
      (*a*) The danger of the biased viewpoint in prophesying the necessity for publicity through advertising.

B. Newspapers and periodicals.
   1. With local circulation.
      (*a*) A form of service, chiefly through field surveys and the determination of local sales resistance and potentialities.
   2. With national circulation.
      (*a*) Information concerning industry in general.
         (1) Studies of purchasing power.
         (2) Per capita consumption.
         (3) Class markets.

C. The industrial engineer.
   1. How is he qualified to undertake the work?
      (*a*) By training.
      (*b*) Background of scientific principles.
      (*c*) Understands organization.

D. The independent specialist.

1. His advantages, what are they?
   (*a*) Understands general market conditions.
   (*b*) The prejudiced viewpoint is eliminated.
   (*c*) Can make surveys on quantity-production basis, and therefore in many cases cheaper.
   (*d*) Has had benefit of experience investigating other fields.

CHAPTER V

ORGANIZING THE MARKET SURVEY

INDIVIDUAL requirements and conditions will affect the question of who shall carry on market analysis. For some time, it is to be expected that the work will be done by the various types of organizations existing at present, such as (1) the company itself, (2) the advertising agency, (3) newspapers and periodicals, (4) the industrial engineering concern, and (5) the independent individual or organization.

We speak of a market survey and ordinarily think of it as something peculiar to markets. But, as has been pointed out, the marketing problem is at the root of every business problem. It lies beneath the purchasing and the production, it is the aim and direct goal of the sales department. Therefore a research department for the study of markets becomes in actual practice a laboratory for the study of all the company's non-technical problems, since all of them are so closely correlated with the study of the market.

The Application of Scientific Methods to Markets. It seems indisputable that the markets of the future are to be won only through the application of scientific methods. The probability is that markets will from now on be sought so competitively that we can rarely expect to find them ready made. They will be available ordinarily only to those who apply most intensively the scientific methods of modern industry.

Science is built upon facts. Therefore the first step in the application of science to markets is that of revealing all facts which bear upon the problem. First of all, the market survey department must obtain these facts; secondly, it must analyze and interpret them; and thirdly, it must show how these findings may be applied to the particular business in question.

It has been said in regard to commercial research that " the man is more important than the method." To a great extent this is

true. It is largely in the hands of the man who does the actual research work to make or mar the survey. Although the fundamental principles underlying every market investigation are the same, the individual problem demands individual treatment. To the man with scientific training who has a thorough grasp of business principles the application of the market survey is least difficult.

The Company's Market Research Department. In many ways the company is in the best position to prosecute a study of its market. In the first place, its own files should contain information which will prove invaluable in the research work. Furthermore, the company may be in a position to carry on this work at a somewhat lower charge, although this is by no means certain, since to a large extent the expense of market surveys is dependent upon conducting the work on a quantity basis. Accordingly, unless the company has a very considerable marketing problem, it can hardly afford to maintain a force solely for this purpose.

Fig. 21 shows the organization of a successful research department. Every step in the process is clearly delineated. There is no opportunity for overlapping of functions, or lost energy. The methods and the sequence are carefully planned.

Perhaps the greatest advantage of the company's having its own market analysis department is that the work then becomes a continuous process, or at least a process which is carried forward at periodic intervals, so that altered conditions in the market and in the industry at large are always kept in view. The necessity for regarding markets as constantly changing and not as fixed phenomena should not be lost sight of.

Companies whose size does not warrant keeping up an expensive organization purely for the study of markets may find it possible to combine market survey work with other regular work of the company. The functions of an industrial engineering, a planning, a betterment, or an efficiency department, though unlike in one way, yet are properly carried on by similar scientific methods, and it is possible that the work of market analysis may be combined with them.

If the company already has a research or statistical department, the place to do the market analysis work is logically provided for. If no other place is available, the work might be

conducted under the auspices of the sales or advertising department, yet a word of caution is necessary against doing this unless it is certain that the freedom of action of the director of research be not interfered with. There is too likely to be a feeling of hostility from the sales department unless it is realized that the research work is intended, not as a check-up on the sales manager,

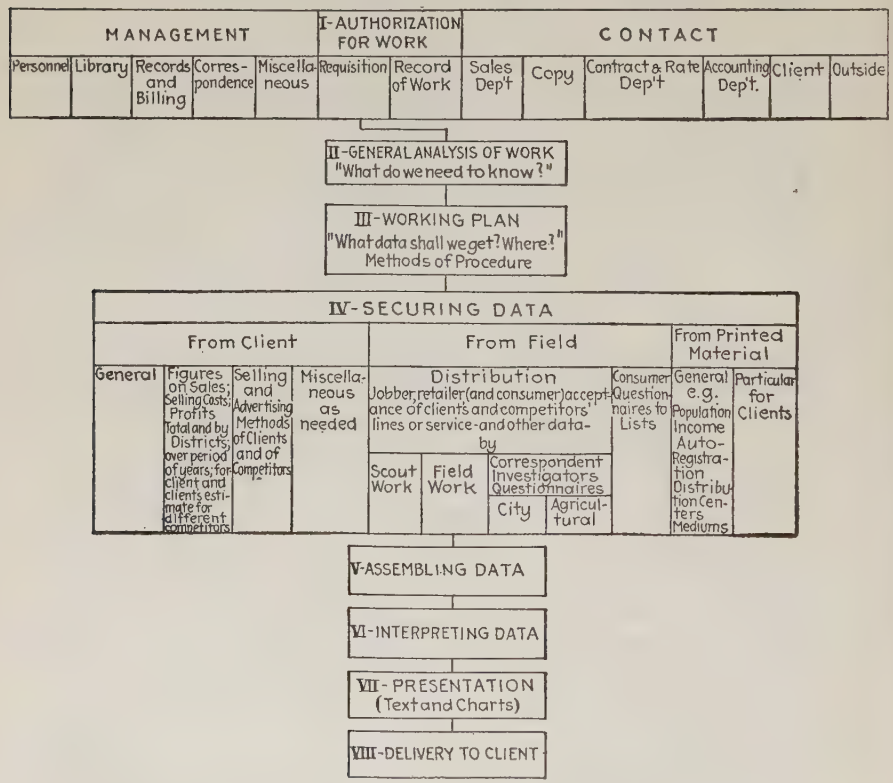


FIG. 21.—Organization Chart of Commercial Research Department.

but as helping to put his work on a more logical and sound, and, therefore, more profitable basis. The same applies to the advertising department, which is usually the first to profit by the results of the survey.

Cost. The company's best plan in regard to cost is to set aside the amount of money it is willing to spend for market

research work. No accurate estimate could be given in advance of what an investigation would cost, since it depends on the scope and thoroughness with which the work is done, on the care taken in detail work, such as interviews, questionnaires, etc. Where interviewing is done on any large scale, travelling expenses will amount to a considerable sum. For this reason it may be advisable to do interviewing near at hand, and to cover the distant territory by means of questionnaires and letters.

If a company installs a market research department, it should not be too large at the start. Not many businesses would warrant a full-fledged department at the beginning. Cost is materially decreased also by various office mechanical appliances which do away with much clerical help.

The Qualifications for Research Work. It goes without saying that the value of the work will be directly dependent on the character of the man in charge. In selecting him, the company will have two alternatives, first, to organize a department with a research director secured from an outside source, or secondly, to choose someone from its own staff, who is specially qualified for the work, as the nucleus of the department.

The director of the research work must combine two distinct capacities, not ordinarily found together. In the first place, he must have a sound understanding of practical business problems, plus a grounding in economics. That is, he must not be a mere theorist, although understanding thoroughly the theory. In the second place, he must have imagination and interpretive ability.

In addition to these fundamental requisites, there are other qualities which the research director must possess himself or be able to command. His mind should have an analytical turn. He should be able to pick problems to pieces, to dissect them into their component parts, and conversely he should be able to take isolated facts and build them together again.

He should be able to classify facts. He should have a knowledge of statistics. Although he need not necessarily be a statistician, he should be able to utilize the statistics which have been gathered, as well as know what statistics should be collected.

He must be able to present a column of figures or an array of similar facts pictorially. If he himself is not a draftsman, there

should be somebody available with enough ability in mechanical drawing to construct graphs, charts, etc., under his supervision.

The director should have presence. He must meet with and consult many people, from the technical expert to the heads of large business ventures. He should have tact. He is continually faced with situations where he must instinctively know the right thing to do.

The investigator should know how to write letters. His correspondence will be large, varied, and insistent. Of course, the more he can standardize his correspondence, the less time will have to be devoted to this task.

Assistants. Market analysis cannot be handled to the best advantage by one man. In the first place, no man is likely to be found who will contain in himself alone the desirable qualifications of a market research specialist. Therefore, he should have assistants. Their number and quality will be determined by the nature and scope of his work. In addition to a stenographer, and possibly a filing clerk, he should be able to command the services of interviewers, although interviewing is so important that he himself should do a portion of it.

One solution of the problem of getting assistants has been found in drafting some of the regular office force for temporary help. Since under any conditions the work is sporadic, and since the need for assistants fluctuates, this may prove sufficient.

The difficulty with using salesman as assistants is that they are salesmen, and are " sold " themselves on the product and the company. A salesman with doubts in his mind proves a poor investment as a salesman, although not necessarily as an investigator.

Clerical help is of great importance. Filing should be done every day as a matter of office practice. In the case of field survey work, investigators, or scouts, will be required. Obviously the director of the work cannot himself do all of this investigating, if carried on on a large scale. He must rely on subordinates. Women may be used for interviewing in many cases. In addition to being cheaper, women often prove more conscientious and painstaking. Frequently, also, they obtain a more courteous hearing.

One form of interviewing which has been productive of good

results is to put an interviewer behind the counter of the retail store where goods are finally sold and by judicious questioning of customers obtain an interesting view of the problem.

Coördinating the Research Department with Sales, Production, etc. What should the relation be between the research department and the sales department? What can it get from, and what can it contribute to the other departments? The research department ought not only to aim at coöperating with other departments of the company, but it ought further to be a coördinating influence in itself. Its very work is of such a character as to join together the various segments of which the company is composed.

For example, if the product which is being manufactured does not exactly meet the demands of the market, this will probably result eventually in readjusting the relations between the sales and production departments. The research director should be the first to become cognizant of this necessity for adjustment, and ought to bring the matter to the attention of the two departments, and be the medium through which things are straightened out.

Although the research department will act as a species of advance agent of the sales department, blazing new trails for it to follow, and assisting in the outlining of new campaigns, it stands from an organization viewpoint between production and sales, as a coördinating function between the two.

Office Equipment. The market research department needs adequate filing systems and methods for producing letters in quantity. A multigraph will do the work effectively and can be made to perform a very neat job, under proper operation. As there is no particular advantage in research work in disguising a form letter, emphasis may be placed on speed and efficiency in turning out letters. A mimeograph will do for making questionnaires, but is hardly perfect enough to serve for letters. The automatic typewriter, if the company already possesses one, is good for some purposes.

There are various mechanical contrivances which make the routine of the department much simpler. An adding machine is a convenience. A slide rule is of much help in analyzing figures.

A machine which stamps envelopes, principally return

envelopes, since government stamped envelopes are more practicable for the department's mailing, is of assistance where the campaign is widespread. A sealing machine is also handy. It is not worth while, of course, to purchase things especially for this department. There may be a mail-order or mailing department already existing which can handle much of the work for the investigator.

The company should own the reference books pertaining to its own line of business, as well as subscribe to the trade periodicals.

In time, the department will accumulate much valuable equipment, such as files of catalogues, mailing lists, etc. A skilful composer of letters can get together a collection of form letters which will answer for a large amount of the correspondence. By collecting these in a form book, numbered and indexed, it is simply necessary to set down the number of the reply on the face of the letter of routine business nature, and the stenographer will then have simply to copy from the stereotyped form.

Under Whose Name Shall the Work be Done? In many cases, to conduct the investigation under the name of the company has disadvantages. For instance, in obtaining information by questionnaire, the results are often better if letters are sent out under the investigator's own name. This is chiefly for the reason that once the name of the company is known it has a tendency to bring forth biased answers.

It may also be desirable to use a private address, since the company's address might betray its identity. In writing to experts, it is better to use personal stationery because of their possible affiliations with competing companies. Particularly, in writing abroad, it is desirable to use the investigator's own name, since in foreign countries there is much more hesitancy about giving out information than in this country.

In personal interviews, it is hard to avoid using the company's name, and it is then part of the interviewer's task to remove any disagreeable impression or preconceived opinion. In a consumer investigation, where the exact impressions of dealers and jobbers are desired about the company, its product, and its marketing policies, the use of the company's name is obligatory, but the way in which it is brought in may have much to do with the success of the investigation.

Although the research department ought to be closely in touch with the plant and production activities, yet probably it should be located at the offices, in cases where the two are separated.

How long it takes to make a survey depends on the character of the investigation. The preliminary survey takes but a short time. Field surveys alone may also be completed in a fortnight or less. Where letters have to be written, questionnaires composed, mailing lists formulated, and other details arranged, it will take a much longer time. Where the survey is international, the length of time required to receive information from foreign sources makes the duration of the survey much longer.

The Advertising Agency. Much of the most advanced work yet done in market analysis has been accomplished by advertising agencies.

This has been due to a number of factors. First of all, it was the advertising agency which was in the best position to make immediate use of any thorough analysis of a market. In fact, without positive data as to markets, their extent, requirements, peculiarities, and general characteristics, it is now-a-days next to impossible to formulate a rational advertising program. The advertising agency, therefore, if it is to compete with other agencies, is practically forced to provide itself, either within its own organization or elsewhere, with the means for conducting work of this nature. Whether or not, as the analysis of markets is better understood, this sort of work will need to be done by the agencies is problematical. In some instances, it has been found that research work was overdone by agencies and that it did not lead to the most desirable results. There was a tendency to use the service as a "business-getter." This is the natural and legitimate use of any service, but it is likely in this instance to prove an unsound policy, since it presupposes that one finding of the investigation will be the recommendation of an advertising appropriation. It is, of course, unscientific to presuppose anything so definite as to the outcome of any investigation.

The advertising agency is in one way advantageously placed, since its clients presumably look to it for advice in merchandising problems connected with publicity, and in many cases follow that advice. In a way, the possession of a research department is as important for the agency as for the client, since the reputation

of the agency depends on the successful carrying out of its advertising campaigns, and that success, in turn, is dependent upon a thorough knowledge of the product and the market.

Researches carried on by advertising agencies are usually less thorough than those made by a company which maintains a department of its own. The research department of the agency will be dealing in all kinds of problems, whereas the company will devote itself to a single subject. Accordingly, in choosing a man for company research, his acquaintance with the particular business might be a matter of importance, whereas in choosing a man to do research work for an advertising agency, it would be well to get someone capable of handling problems covering a wide range of subjects.

Newspapers and Periodicals. Many newspapers in the larger cities offer a so-called merchandising service, free to advertisers. The surveys which they make are confined to a narrow radius of activity, namely the field survey. In that sphere they have been very successful.

To the advertiser, this service is often a boon. It indicates for him the place of his product in the local field, and sets forth the salient facts about its popularity or unpopularity. The value of these surveys for the newspaper lies in the fact that they can be used to interest the manufacturer of a similar product as well as the manufacturer for whom it is made.

The newspaper has, perhaps, an even better opportunity than the agency to do this work, since the articles advertised in newspapers cover so wide a range. Again, the newspaper has enormous funds of information to draw upon, and a reportorial force which may contribute.

The idea of market analysis has spread with such rapidity that it is now no unusual thing to find magazines, periodicals, and trade papers equipped with research departments. Whereas the local newspapers deal with local market problems, the national magazines are more likely to deal with the industry in general. They make studies of purchasing power, per capita consumption, "quality markets," etc. Their aim is to show where the great opportunities lie in national advertising, and how their medium serves the purpose best. This information, again, is free to advertisers, and is often published for the information of the public.

The Industrial Engineer. The chief claim of the industrial engineer to conducting market analysis work is that he is excellently qualified by training and constant contact with similar problems to cope with the peculiar complications and far-reaching ramifications which market survey work entails. The analysis of markets is not so different from the analysis of production problems. In fact, the same principles of scientific management which apply to one may be expected to apply with equal force to the other. Many industrial engineers have found it a logical extension of their activities to enter the field of commercial research. The industrial engineer understands organization, and organization is very important in market analysis.

The Independent Market Engineer. The main advantages of conducting work of this sort through an independent worker are two. First, he is a specialist, devoting his entire time to a single subject. He is thus in a position not only to be able to diagnose a particular company's problem with fair accuracy, even from a somewhat superficial examination, but he is also, by virtue of a wide experience with markets in every field, conversant with the markets and marketing problems of the entire country, not to speak of the broader significance of international marketing problems.

Now, it is of primary importance that any student of markets should understand fundamental conditions—social, political, and economic, as well as purely commercial, since it is the broad general questions of the day which are really the underlying factors controlling all supply and demand, factors to which any marketing problem, of whatever nature, will eventually be resolvable.

Aside from the temporal questions referred to, the specialist is in a position to acquaint himself more thoroughly with the economic laws which control markets, such as supply and demand. Simple as these various laws appear, when each one is considered as operating individually, they are, when observed, in the inevitable conflict and complication characteristic of all practical and actual business problems, baffling to the mind which has not been trained in the technique of markets.

The second advantage of conducting market analysis work independently is that this method eliminates prejudice. The advertising agency, whether or not its market surveys actually

recommend advertising appropriations, is looked at askance by many business men on account of this possible ulterior motive. Likewise, the industrial engineer who specialises in production problems is apt to have his vision somewhat deflected from the point at issue. The company which conducts its own department for the sole purpose of market analysis work is likewise apt to suffer from failure to obtain a thoroughly unprejudiced perspective. The mere fact of being so closely identified with its own problem increases the difficulty of obtaining in its accurate values the opinion in which the company is held by its customers and by the public in general.

General Conclusions. Before undertaking a survey of any extent, it is necessary to come to a definite decision as to which method of market research work is to be adopted, and then to hold to it consistently until the survey is finished, instead of changing horses in the stream. It is well enough for the surveyor to learn about how he is going to conduct the work, but before actually undertaking anything, his first job is the organization of the department. It is hopeless to begin without this organization, and foolish to jump into the middle of a survey without having at least the fundamentals of an organization. Everybody expecting to be connected with the work ought to study the proposition, just as he would have to study any other new trade or profession.

Having discussed the methods of securing data, of classifying them, and presenting them, and having organized the department, it is time to take up in detail the various factors which will enter into practically every market investigation. The following chapters, accordingly, will treat especially of these factors.

CHAPTER VI

DETERMINING THE PROBLEM

The objective of a market survey is ordinarily a quantitative analysis of the market, rather than an inquiry into production, purchasing, or other phases of the company's activities. Although it may be difficult to determine the problem accurately without a preliminary investigation, nevertheless, for the sake of convenience, it is discussed here prior to taking up a detailed analysis of preliminary work.

It would be manifestly impossible, within the range of one investigation, to follow out all the many avenues of study which present themselves. The main purpose of the survey must always be kept in mind, and the investigator must not be deflected from it.

He will often find that the principal objective may be resolved into a number of secondary problems, and he may find it possible to subdivide indefinitely. But it is essential for him to make sure that the main objective is the correct one, and that he is aiming fairly at his far-off mark.

No one can tell, without knowledge of the particular business, what its marketing problems are. However, there are four main reasons why market surveys are made, and the business man, in examining his own case, will be likely to find that it falls within the limits of one of them. These four classifications are as follows:

1. Surveys Preparatory to Introducing Goods. The practice is becoming more frequent, before placing a new commodity on the market, of making a survey with the purpose of suiting commodity and market to each other. This places much of the responsibility for the success of the product upon the commercial research department.

The chief difficulty in making a survey of this kind arises from the fact that the product as yet has not been placed before the public, and that, consequently, it is not easy to obtain a specific market reaction. To procure actual facts regarding the con-

sumer's opinion of the product, it has sometimes been the practice to make up and send out a certain number of trial packages. By carefully following these up, it has been possible to get much valuable information.

One particular company, in preparation for the sale of a new fat used in cooking, for several years carried on experiments simultaneously in the laboratory and among consumers, before the composition was found to be exactly right. This is an excellent example of the proper use of market analysis in this connection.

But the failures to examine markets are infinitely more numerous. The company which shipped soap to India with the picture of an animal on the wrapper would have averted failure had it taken pains to study the religious tenets of the Hindoos through a market survey.

Assuming that the technical side of the product has been perfected, market surveys of this class must determine in advance what demand may be expected and how this demand shall be met or stimulated. In particular, a thorough and exhaustive analysis of competition and an accurate estimate of sales resistance will be required.

2. Surveys upon which to Base Advertising. Before undertaking an extensive advertising campaign, it is generally desirable to make a market analysis of the product. It is now generally agreed that an efficient advertising plan must be based upon definite and accurate information. The value of market research in this connection is especially evident, since the results are immediately applicable. The conclusions will not only determine upon what appeal to base the advertising campaign, but also to what particular strata the appeal should be directed.

3. Economic Necessity as a Motive. The force of competition, an economic crisis, the necessity for expansion in markets to take care of increased production, or other economic cause, may make a market survey desirable. About once in so often, every business will encounter economic changes, of one kind or another, and upon such occasions an entirely new focus is necessary. Not long ago a prominent manufacturer of fountain pens found himself in this position. His business showed a marked decrease in sales, the trouble being mainly due to active and energetic competition. After a careful market analysis, the methods of sales and distribu-

tion then in vogue were radically changed along the line of the recommendations made in the survey and, as a result, this manufacturer was reinstated in his former position.

4. Surveys of a Preventative Nature. As everyone knows, the cycle of business depression follows hard on that of business prosperity, and vice versa. Many times the causes which precipitate the rise or fall of the business barometer are not visible on the surface. Therefore, the fourth occasion for a market survey is as a predictor of the future. By the study of general conditions in business and in the industry, inevitable in such a survey, it is often possible to forecast the future of the business, at least far enough ahead to avoid any great loss through sudden economic change.

The business man, even if he does not find that his own proposition falls definitely within the scope of any of the above four headings, will at least by attempting to find its place here be able to classify his ideas as to its nature and to determine why it falls or fails to fall under the arbitrary classification. If this process succeeds in giving him a sharply focussed idea of the task before him, his purpose will thereby have been accomplished.

The Essence of Marketing Problems. There are three fundamental divisions in every market analysis. First, there is the product, second, the market, and third, the method of bringing the product and the market together. The surveyor is likely to find room for improvement under all of these headings. It is one of the chief functions of the preliminary work to ascertain where these weaknesses lie. Upon this diagnosis, the campaign may be mapped out in advance.

1. When the problem concerns chiefly the product, there search work is of two kinds, along lines of technical change, and along lines of consumer tests.

a. Technical Tests. There may be something wrong with the nature of the product itself, with its engineering principles, or otherwise. After comparison with competing goods, and hearing a few criticisms, the analyst may decide whether there is any radical defect. A manufacturer of electric irons, under such circumstances, made a market survey and, as a result, modified his product, changing the position of the cord, the weight of the iron, etc., in such a manner as to fit the average housewife's ideas of

what an electric iron should be. Another market survey along the same lines showed that an automobile universal joint was unanimously condemned by customers because of a slight defect in the means for retaining lubricant. As a matter of fact, most market surveys call, at least, for minor changes in the product.

b. Customer and Consumer Tests. The psychological appeal of the product may be wrong. It may be packaged incorrectly, the color of the wrapper unsuitable, or in some other way the method of presentation to the consumer be ill chosen. Errors of this sort may frequently be discovered by direct application to the customers and consumers themselves.

As an example of such an error, the following is instructive. The manufacturer of a toilet preparation arbitrarily increased the size of the package to a point where it had to be sold for fifty cents. Much trouble was experienced because of the contents hardening before being used up. In accordance with this dissatisfaction, sales fell off. It might have been determined easily, by consulting customers in advance as to the change, that a tube half as large would be consumed before the contents had deteriorated, and would thus command greater sales. The methods of making consumer tests are usually so obvious as to be very easy to carry out. Some hints as to conducting them will be found in the chapter on "Methods of Securing Data."

2. If the problem has to do with the market, that is, with the extent, character, and habits of its buying public, then the majority of the surveyor's work will be in the field. In introducing a new product, his task is largely limited to a study of the market. As an example of this, not long ago a readily portable but high-powered searchlight was invented. The owners of the device were uncertain in what quarters to market it. Through the medium of a market survey, the searchlight was found to be adapted for sportsmen's use, for police and fire departments, for guarding prisons, for emergency equipment for high tension electric lines, as life-boat equipment, and so on. This is one of those cases where an article does not admit of much modification, and where the surveyor's task is primarily to find people who are ready to use it in its present form.

3. If the problem has to do with merchandising methods, the aim of the research will be to determine, through a study

of the market, the product, and competition, what form of distribution and what merchandising methods are most suitable. The manufacturer may find, for instance, that his sales increase much more rapidly in territories where they are stimulated by intensive local advertising, after national advertising alone has proved inadequate. Problems of this nature are solvable only after a thorough examination of the entire sales and distributive systems.

Almost any problem will have to do not only with the market, the product, and the means for bringing the two together, but will be tied in with all three. In fact, it is noticeable in the above examples that there is no very definite reason why they should be in one class rather than in another. After all, it is not necessary to classify the problems for the mere sake of classification, unless by so doing it is of some assistance in their solution.

The Indefinite Character of Marketing Problems. One of the trying things about market analysis work is its indefiniteness. There seems to be nothing tangible. The most one can hope to do is to arrive at approximations. Every attempt at accuracy and precise formulation of data reveals the difficulties of obtaining exact and reliable figures. In fact, the very attempt to get figures down to too fine a point often proves dangerous, since market data which can be obtained very exactly are apt to be so limited or so local as not to be representative.

The market analyst is constantly having to make estimates and allowances. A great part of his work, indeed, is calculating errors. Again, he is dealing with averages, and these are always baffling. Finally, in part of his work, at least, he has to do with the future. And such little progress has been made in the science of prediction, that much guesswork is bound to enter.

The problem before the market surveyor is not at all like a problem in geometry. He has no theorems to demonstrate. In fact, he is fortunate if the problem is set before him at all. He is asked to undertake a survey of the market, and left to his own devices. Vague as this is, it is probably better than being confronted with an array of premises, drawn up hurriedly by an executive with neither the perspective nor the training to qualify him for this most difficult research task.

Admittedly, it is impossible to complete a market survey

with the same degree of finality with which a manufacturing operation or a game of golf may be completed. Still, the surveyor cannot be too often reminded of the importance of continuously keeping his eyes on the goal. The mere machinery used in investigating has often proved so fascinating to the novice that it has absorbed his time and attention, and he has found, when close to what he supposed to be the end, that he had not obtained the essential information.

Dividing the Problem. The resolving of the main issue into its various components will try the resourcefulness of the keenest business man. As a rule, it is better not to attempt too fine a division until the preliminary survey has been completed, although one should always be on the lookout for indications of what are the really vital considerations and the methods for disclosing them. An example of major and minor problems will occur to any company which has attempted to distribute its goods through both jobber and dealer channels. Here, of course, the distribution of the goods themselves is the major problem, while the minor problems are those of determining the discounts allowable to the various classes of middlemen, the question of whether a dealer handling a large volume is entitled to jobber discounts, etc. The surveyor will be confronted by such a network of non-essential and routine details, which keep cropping up in the course of this work, that, unless suitable assistants are provided, he will find himself in danger of being diverted from that all-important main issue.

One good way to go about isolating the several factors in the analysis is to divide the main problem into a series of key problems which, when solved, will combine to serve as a solution for the major problem, just as the marine draftsman, by finding the correct location of a few points, can carry his spline up to them, and draw a fair water-line curve.

The investigator's purpose should be to divide his problem into its logical components, and to consider each of these components as a separate entity. The only real trouble with this plan is that the moment a marketing problem is cut off from its surroundings it ceases to have life and reality.

Determining the problem and planning how to solve it are both halves of the same orange. One must first decide what in-

formation will have to be obtained to settle the question at issue; but simultaneously it must be decided whether or not it is possible and practicable to obtain that information.

The questions which an investigator sets himself to answer must be of such a nature that he can gather sound evidence for their solution. Following are two tests which he should put to every line of investigation which opens up:

(1) Will this line of investigation furnish data which will solve, or help to solve, one of my key problems?

(2) Is this line of investigation one which it is possible and feasible to carry out?

Conclusions. A Sherlock Holmes deals with only a single criminal. A production engineer has only one machine to cope with, or one department, or, at most, a single plant. The market surveyor ordinarily has a field large in geographical extent, and made up of such a motley of distributors, middlemen, and ultimate consumers that he can hardly expect to count them.

It is as difficult to plan a market survey campaign in its entirety as it is to plan a military campaign in advance. Here again it is a matter of expediency—the surveyor cannot guard against every eventuality; he must be continually on the watch.

Still, it is common to find that the plan of campaign will begin to evolve itself when the problems themselves have been determined. It should be planned as far in advance as possible. Indeed, if the entire problem could be determined at the outset, there would be nothing to hinder planning every step before a single move was made. Unfortunately, however, even after the preliminary survey has been made, the problem is still not quite determined, and there are always plans of attack which cannot be formulated until the last moment.

Once the preliminary report has been submitted, the surveyer should have a fairly concrete idea of what information he must get in order to draw sound conclusions, and also how to procure that information. He must decide how much time is to be allowed for making the study, and how much money is available, and he must lay his plans accordingly. He prepares a list of sources of information, and decides how he is going to tap these sources. He makes up a number of questionnaires, and plans for certain interviews. He makes ready to carry onward the biblio-

graphical work which was started during the preliminary survey. He reflects upon the form in which his final report is to be written. He even considers what he will need in the way of charts, diagrams, and other means of illustrating it.

The following chapters are intended to outline various considerations to which the surveyor will have to give his attention in practically any survey; and it is important that he be conversant with all of these considerations while his campaign is still in a formative stage.

CHAPTER VII

THE PRELIMINARY ANALYSIS

Outline

What is the purpose of a preliminary survey?

(*a*) To form a conception of the scope, method, and possible results of the analysis.
(*b*) To allow the formation of first impressions.
(*c*) To secure the approval of the company's executives.

How should the preliminary work be conducted?

(*a*) The internal point of view. What does the company think?
  (1) How should information be secured from the various departments?
    (*a*) The necessity for tact.
    (*b*) The value of being a good listener.
    (*c*) A preliminary questionnaire.
    (*d*) The disadvantages of taking notes.
  (2) Are conferences desirable?
    (*a*) The opportunity afforded for getting acquainted.
    (*b*) The disadvantages of the conference being dominated by a single individual and the danger of arousing animosity.

(*b*) The external point of view. What does the public think?
  (1) What preliminary information should be obtained outside?
    (*a*) The outside impression of the company and its product.
    (*b*) The salient facts about the industry in general.
    (*c*) Competition.
      (1) Obtain catalogues.
      (2) Advertising in trade periodicals, etc.
    (*d*) The buying public.
      (1) Personal interview with two or three customers.

What is the practical value of the preliminary analysis?

(*a*) The definite working policy resulting from a comparison of the two angles of approach, the internal and the external.
(*b*) The brief space of time required to assemble the preliminary information.

What should the preliminary report contain?

(*a*) An outline of the final report.
(*b*) A digest of impressions received.
(*c*) The plan for proceeding with the work.
(*d*) Preliminary conclusions.

What may result from submitting the preliminary report?

(*a*) Authority to proceed along scheduled plan.
(*b*) Expression of opinion from company officials as to work.
(*c*) Additional information along lines not covered in preliminary report.

CHAPTER VII

THE PRELIMINARY ANALYSIS

The preliminary work affords an opportunity to obtain a broad view before becoming immersed in the detail incident to a close study of the company in all the phases of its activity.

No man, however experienced he may be, can plan out his survey work accurately without securing an adequate amount of advance information. The preliminary survey gives the investigator an opportunity to ascertain the company's ailments, just as a physician makes a diagnosis.

The Purpose of the Preliminary Report. The object of making a preliminary investigation is to crystallize in the mind of the investigator and of the company's executives just what questions the survey is to deal with, and in general to bring out as specifically as possible the various factors which will contribute to a solution of the marketing problem. For example, in an investigation of the market for ball-bearing cotton spindles, it took the surveyor but three days to find out that the trade was unanimously opposed to this innovation. The objective was thus defined almost at the beginning. This is a clarifying process, and will have three very definite results:

(1) It will not only stimulate the minds of those involved, but will also focus their interest upon the various issues in question, and will be the nucleus of a definite conception of the task. The preliminary study reveals what is to be done, and also points the way to the method of conducting the work and should further foreshadow the results which the completed survey is to bring about.

(2) The preliminary survey will allow the investigator to express his first impressions in an off-hand and daring manner more conducive to brilliant analysis than the plodding procedure which he must inevitably follow in the amassing of substantial evidence.

(3) Partly, also, it is desirable to make a brief preliminary

study in order that the first report may have the approval of the company's executives. This gives them an opportunity to examine the nature of the work, and to understand rather exactly in what direction the time and the money appropriated are to be spent.

The Internal and External Viewpoints. Every market problem may well be attacked from two angles, the internal, that is from the inside of the organization looking out, and the external, from the outside looking in. The fusion of these two viewpoints should enable the surveyor to form an accurate judgment of the whole proposition.

To avoid confusion, he should, if possible, have at least one assistant. Whichever individual undertakes the internal study is in some danger of losing his perspective. His mind becomes filled with the arguments of policy and expediency advanced by the heads of various departments and by their subordinates. The broader aspects of the question are apt to escape him.

The external attack makes clear not only what the outside world thinks of the company and of the product, but it also deals with the theoretical considerations of the ideal way in which to conduct such a business, judging it wholly without reference to the particular disadvantages under which the company may labor.

It can easily be seen that when the results of these two separate investigations are compared, a much better policy can be formulated than if one mind had attempted to perform the entire task.

The Internal Point of View. The inside investigation is necessarily made at the company's plant and offices. In this preliminary work it is desirable to elicit as much information as possible from everyone connected with the organization. A thorough examination of sales and purchasing records, etc., will come later, but in the beginning it is vital to get the reaction of the personnel.

The investigator at this stage of the proceedings does what the newspaper reporter does—he interviews everybody. Even if he does not know a great deal about the business, he will all the more readily absorb impressions and make a complete picture of them. An untutored mind may often see great market possibilities. It was a woman who had never but once been in a glass works who was responsible for the idea of " Pyrex " glassware for cooking.

The surveyor will find that he cannot avoid discussing matters

to a considerable extent with some of the executives of the company. They will undoubtedly have some very definite opinions and be anxious to express them, though there is always danger in attaching too much weight to them.

Another thing the investigator is likely to encounter is that of hearing too much about the history of the business, especially of its darker side. A certain amount of information on this score is well enough, but it is almost inevitable that he will have to call a halt and refuse to listen to the tribulations which have been passed through.

The surveyor should avoid being too aggressive. On the other hand, although it is desirable to maintain something of the attitude of the cold-blooded scientist, there is danger of overdoing this and becoming disliked. One of the greatest assets a man can have at this stage is that of being a good listener. There is sure to be someone at the plant who is only waiting for a chance to unburden his or her mind, and who will be glad to tell the whole story from beginning to end.

Departmental Sources of Information. There is much necessary information that should be obtained from the departments themselves. And here is where the tactfulness of the investigator must be employed to its fullest extent. Most people resent anything in the nature of personal investigation, if it is followed out as such. The head of a department regards the scope of his activities as definitely his own. He is likely to object to an outsider's probing into the results of what he has accomplished or failed to accomplish. Although this hostility may not be expressed openly, the investigator can feel it in the air. He is afforded only the assistance which he demands. That spontaneous information, which, after all, is oftentimes the most valuable, is withheld.

Considerable time must, of course, be spent with the sales manager, or in the sales department. Information from this source is of much importance, because it will show what has been done by the company in developing its markets. In the preliminary work, not much more can be done than to get the general history of past activities and the ideas of the sales department as to the future. An examination of the records will come later to be used as corroboratory and graphic evidence.

But it is inadvisable to devote too much time to the sales department and to the study of sales problems pure and simple.

One method commonly followed in obtaining information from the various departments is by means of a sort of oral questionnaire. This is submitted to the various heads and the answers to it recorded, thus saving much work on the part of the investigator. The advantage of such a questionnaire is first, that it eliminates the possibility of omitting certain important considerations, and second, it makes progress easier and more rapid than where no methodical procedure is followed. Also, it gives one an excellent variety of opinions. In one investigation when six executives were asked what was the most important problem facing their business, no two gave the same answer. Although this is an unusual state of affairs, it nevertheless indicates the necessity of obtaining views from several sources.

Of course, there are always a certain number of special questions which come up. Consequently, no slavish following of a set questionnaire is in itself sufficient. The best way, perhaps, in the preliminary work, is to have a general idea of what questions to ask and to elicit the answers tactfully and with little apparent guidance. It is, of course, often inexpedient for the interviewer to refer to a list of questions. Even to take notes during an interview is very apt to cause a man to withhold his opinions. If possible, a good way is to make notes after talking with each executive, and especially to write down any general impressions which have come to mind. The value of these preliminary field notes is very real. While he is doing this, the surveyor will have an opportunity to check up and find out whether any important points have been neglected.

Holding Conferences. It is frequently the custom to initiate the market investigator by means of a preliminary conference. Thus he should have gained a general idea of the problems involved even before he goes to the plant. He will doubtless have been told what the questions at issue are and what particularly is required in the way of specialized investigation. There have, however, been cases in which this preliminary impression either through malice or unintentionally, was distorted to such an extent that it did not reflect the actual complexion of the case. The conference

gives the investigator an opportunity to size up the problem as the company sees it.

One of the greatest values of the preliminary conference is the opportunity it offers for getting acquainted at the beginning with as many of the personnel as possible. The men make the organization, and their individual characters, taken collectively, form the character of the group. The investigator has a chance here to observe the various personalities and their relations with each other.

A conference, however, in the average industrial organization, is apt to be dominated by a single individual, more especially in cases where there is a stranger present. It is, therefore, essential that, whether there is a conference or not, the executives should be interviewed separately and their views on marketing and other problems elicited. Unless the investigator is used to conferences, he will find the latter a less trying means for obtaining opinions.

The preliminary conference should in any case be limited in so far as possible to the discussion of such points as the investigator himself brings forward. His primary function is not in tabulating the opinions of everybody on whatever subjects they may care to discuss, but of finding the facts, and from them drawing the logical conclusions. This he can accomplish most effectively if he act as the spokesman of the meeting and lead it on to take up the various matters laid down in previously arranged plans.

There is likelihood that too long or too free a conference, especially at the beginning, will stir up animosity of one sort or another. It may even tend to reflect discredit on someone. Oftentimes market surveys are made because the sales department or some other branch of the business has not been up to standard. The position of the market investigator is accordingly a delicate one. It takes considerable resourcefulness on his part to be diplomatic, and to say the right thing, while his mind is concentrated on the very difficult problem of unearthing baffling facts.

The preliminary investigation is not a place for the surveyor's expression of opinions. It is simply for obtaining information. An ill-considered opinion at this stage may prejudice everyone. Much information will come through direct observation, and from the little offhand remarks which come to him here and there, per-

haps through a foreman, or a man at the bench. But even asking questions is a difficult thing to do. In the first place, it is hard to formulate queries which shall really strike at the heart of the matter. In the second place, there are many questions which executives either cannot answer or do not care to.

It is better, therefore, if there is to be a preliminary conference, not to propound too many questions, since there is always the danger of making someone present feel uncomfortable, and in thus arousing antagonism. The surveyor must remember there is often a certain amount of aversion to his work; and it is better, if there seems to be any hesitation in answering questions, not to press them, since those answers which are not willingly and directly given may prove misleading. Then again, there are few questions which the investigator cannot answer for himself if he is given the privilege of going into the plant and of meeting the other members of the organization. What one man refuses to talk about, the next will be only too pleased to dwell upon. Care, of course, must be taken not to discuss matters promiscuously, especially before subordinates.

The External Point of View. The external research is fully as important as the internal. They should if possible be carried on simultaneously, with a view to having both completed at the same time. Of course, the real purpose of all the preliminary work is to evolve a logical plan of campaign, and too much time must not be spent; only enough to get a grasp of the subject. The functions of the external survey are more or less predetermined. The surveyor must find out what he can about the company, about the industry in general, about the competition directly affecting the company and the opinions of any customers that can readily be reached. In one survey of a manufactured product the information furnished by a single jobber, interviewed at the outset, gave the gist of the standpoint of jobbers throughout the country.

1. **The Company.** There is a great deal of outside information that can readily be obtained concerning the general aspects of the company in question, its reputation, standing in the community, credit, temper, and character. It will not be surprising if the external findings do not harmonize with those from within. An investigator studying the market for an automobile part was told by the manufacturer that it was the best thing to be had. But

when he got out in the field he was told that it was not good enough for any modern automobile.

The previous discussions had to do with what the company and its officials thought of themselves; the present question is finding out what the outside world thinks of the company, and, in a general way, of its products. The purpose is only to gain a general impression, merely enough to check up with the other viewpoint.

2. The Industry in General. This information is chiefly bibliographical, obtained at the library, the newspaper office, etc. It consists largely of making a preliminary survey of the literature existing on the subject. When this is done, arrangements can more easily be made for obtaining and consulting books and pamphlets. The general idea gained will convey the size of the industry, something of its history and peculiarities, what people think its future will be, etc. The surveyor should not fail to do some library work, even at the beginning. A glance through a few books on the packing industry will give him a very different viewpoint from that he obtains by strolling through the Chicago stockyards.

3. Competition. The study of competition is particularly attractive because of the speedy results to which it leads in the way of affording a clear perspective of the industry. The study of competition has never been pursued to its possible or profitable extent by most businesses. If reliable information can be obtained on this head, it may be of incalculable benefit.

One of the first things to do is to obtain all possible literature and information about the company's competitors. Competition may be of several kinds. It may be competition of one firm with another, or it may be competition with a different sort of product entirely. A manufacturer of cotton toweling, for instance, has to compete not only with other manufacturers of cotton toweling, but with those of linen toweling as well.

Catalogues in many lines of business give a great deal of information, and the practical investigator can tell, by examining them, much about the character of the organization behind them.

It is not too early, even at this preliminary stage, to start clipping from trade journals, newspapers, and magazines, any advertisements of rival concerns. The competitive methods of advertising and merchandising will undoubtedly form an important part of the investigation. What work it is possible to do in the

first few days will be sufficient for the formation of an opinion as to the methods of publicity employed in the industry and a corresponding opinion of the company's methods when compared with those of its competitors.

4. The Buying Public. The general attitude of the buying public towards the product of the company and the policies of the company will be an excellent index of the success or failure of its merchandising methods. Some market investigations which have been confined exclusively to reporting interviews with customers have been remarkably comprehensive, in spite of the limitations of so narrow a method of approach.

Certainly, the preliminary investigation cannot go far in obtaining the views of customers, but a personal interview with three or four local dealers or jobbers may do much to reveal the prominent points of grievance. Customers are as a rule willing to express themselves freely. In fact, they are usually more likely to say what they think of the company and its product than anyone else. Customers who are no longer customers may have the most constructive criticisms to make. But customers may say commendatory things. They may even show opportunities for extending the sale of a product. A study of consumer demand for linoleum showed that it had a wider use than merely for kitchen floors, for which purpose it was originally sold. Large quantities are now sold for other parts of the house.

Comparing Results. The true results of the preliminary work do not appear until the findings of the internal and external studies have been analyzed and compared. Two definite and concrete conceptions will have been formed, and now comes the task of reconciling and unifying them. In many points, of course, the information gathered will not conflict at all, the field not having being duplicated, but it will probably be found that the two points of view, when they bear on the same subject, will not always reveal the same condition. It is this difference which must be scrutinized. A conference should now be held to settle, upon the evidence as it stands, approximately what the case amounts to.

As to the time which it would require to carry the investigation to this point, it need not be very long. It should be possible to get the "inside" information within a day or two, or even less,

in the case of a moderate-sized business. An investigation of a concern manufacturing electrical wiring devices was completed by one man, under pressure, in twenty-four hours. It will take another day, at the least, however, to record the findings, get field notes in order, and dictate an outline of first impressions.

Obtaining the outside point of view will probably take more time. Nevertheless, in this latter case, notes can be made up as the investigation goes along. As a matter of fact, in the ordinary survey of a small business, sufficient material for the preliminary analysis should be obtained by two men within three or four days.

Writing the Preliminary Report. If the procedure has been carried out as outlined, there will already be a considerable amount of data in fairly well classified form which can be embodied in the preliminary report. This, of course, is intended to serve merely as a foundation for the final report.

Careful consideration should be given at this point to the best method of presentation. The actual work of analyzing facts, figures, and opinions is the embodying of these data in readable or graphic form.

Due attention should be given not only to the facts and findings of the report, as it is to appear when completed, but also to the form in which these facts are to be presented in the preliminary report. In other words, the preliminary report should attempt to be everything that the final report is, except that it will be in skeleton form, not containing such complete evidence, nor will the conclusions and recommendations be so full. But in general, the preliminary report ought to follow the same form as the completed report.

Ordinarily, it is better to write out all findings at length before discussing in too much detail the conclusions which are to be drawn from them. Write the facts as they are; do not try to fit the evidence to preconceived notions.

Submitting the Preliminary Report. The submitting of the preliminary report will probably be the occasion of the first conference with the executives of the company at which matters may advisedly be discussed without reserve. The investigator will be in a position, even on the strength of the limited information now at hand, to express some fairly decided views as to policies and plans.

The real function of this conference is to ascertain whether the

preliminary report is along the lines which the company wishes to investigate, and whether the program is adequate and satisfactory. If not, now is the time to make changes. There may be some suggested lines of attack already so apparent as to their outcome that it will be deemed hardly worth while to carry them further, while there will perhaps be other lines which have not been adequately planned for.

CHAPTER VIII

THE PRODUCT TO BE MARKETED

Outline

What is the product?

(*a*) Is it merchandise for manufacture?
(*b*) Is it merchandise for equipment?
(*c*) Is it merchandise for individual or household consumption?
  (1) Utility goods?
  (2) Style goods?
  (3) Combination of the two?
(*d*) Is it an intangible product, a service, an amusement, etc.?

What are the general characteristics of the product?

(*a*) Its physical properties.
  (1) Size.
  (2) Shape.
  (3) Color.
  (4) Appearance.
  (5) Weight.
  (6) Strength.
  (7) Hardness.
  (8) Elasticity.
  (9) Particular qualities or exclusive features.

What are the company's product policies?

(*a*) How many lines and sizes should the company manufacture?
(*b*) How many grades, styles, or types?
(*c*) Does the company manufacture related or unrelated products?
(*d*) What are the most popular lines? Why?
(*e*) How much inventory is carried?
(*f*) What is done with by-products?

What is the nature of the product?

(*a*) What is its economic reason for existence?
  (1) Is it a necessity because it is
    (*a*) A new product?
    (*b*) An improvement over products already in use?
    (*c*) Cheaper?
      (1) Because of improved methods of manufacture?
      (2) Because of proximity to sources of raw materials?

(*d*) A substitute because of shortage of supply of some other product?

(2) A luxury.

(*a*) What degree of luxury demand is present?

(*b*) Is the product dependent for its success on

(1) Style?

(2) Price?

(3) Rarity?

(4) Novelty?

(5) Publicity?

(*a*) National advertising.

(*b*) Trade marks, etc.

Who buys the product?

(*a*) Is it a man, buying at the most convenient place, by impulse or by brand?

(*b*) Is it a woman?

(1) Convenience goods.

(2) Shopping lines.

What is the history of the product?

(*a*) When was it originated?

(*b*) What changes have taken place?

(*c*) How has demand for this product increased?

(*d*) What is the future of the product likely to be?

(*e*) How has production of the product increased?

What is the patent situation affecting the company?

(*a*) Is the patent

(1) On the product itself?

(2) On the process, or machinery of manufacture?

(*b*) What are the competitive patents? How long have they to run?

(*c*) Are there any infringements on other patents?

(*d*) What are patent possibilities?

How great is the danger of being superseded by

(*a*) A physical or technical change in the product?

(*b*) Improved methods of manufacture?

(*c*) Both change in product and methods of manufacture?

What are some possible reasons for being superseded?

(*a*) Are there substitutes for the product existing and making headway?

(*b*) Is legislation preventing progress?

(*c*) Is there a probability of some revolutionary invention superseding the product?

(*d*) Are new sources of supply being found in large quantities?

What is the importance of the package in marketing the product?

(*a*) What is the relative value of bulk and packaged goods?
  (1) Will packaging remove product from staple to luxury class?
(*b*) In how large quantities should the product be packed?
  (1) What determines the size of units?
    (*a*) Is it price?
    (*b*) Is it perishability?
    (*c*) Is it custom?
    (*d*) Is it convenience?
(*c*) How does the shape of the product affect packaging?
  (1) Fragility of the product.
  (2) Fit the pocket.
  (3) Novelty of appeal.
(*d*) Are contents standardized?
(*e*) For how long a period is the carton used?
  (1) Is it returnable?
  (2) Is it destroyed immediately?
  (3) Is it used as container for product in use?
  (4) Is it kept indefinitely and used over and over again?
(*f*) What is the appeal of the package?
  (1) Luxury—display value.
  (2) Necessity—utility.
(*g*) How does what is written on the package affect the problem?
  (1) Should instructions be printed on outside or enclosed?
  (2) What should character of publicity be on package?
(*h*) Of what materials should the carton be made?
(*i*) How are the cartons filled?
(*j*) How does cost of cartons affect product?

CHAPTER VIII

THE PRODUCT TO BE MARKETED

The best known factor in any market investigation will prove to be the product itself. The surveyor should find available more definite and tangible information about what the company makes than about any other aspect of his task. The personal element, so often a complicating factor, is at a minimum. Most important of all, by attacking the product first, the surveyor is following out a safe principle, that of proceeding from the particular to the general, from the heart of the question outward. He will find this exceedingly helpful in keeping the investigation within proper bounds, and he will be less likely to go astray.

The product is a determining factor in everything that follows. It should be studied prior to the market because a thorough understanding of it is necessary before ascertaining the market to which it will appeal. It should be studied before the company, because the company is secondary to the product, and, in fact, built around it. Production, purchasing, selling—each of these departments exists, and exists in the form which it has taken, solely because it serves a certain function in turning out the product. For this reason, any change in the product means, or should mean, a corresponding change in the company itself, and if this change fails to take place, it is an indication that the organization is not functioning properly.

Definition of Product. What do we mean by the product? For purposes of market analysis, a product is any thing or commodity, tangible or intangible, that a company or individual doing business for profit offers for sale. Since the whole method of treatment varies with the nature of the product, it is advisable to make some sort of general classification. For instance, most products will be tangible, either raw material, machinery, or perhaps one of the innumerable articles manufactured for individual consumption.

But, in the proper sense, a product need not be material. An engineering concern sells services, a theatre or moving picture house sells entertainment, while a lawyer sells legal advice. The banker sells financial security. All of these products are none the less merchantable for their lack of physical form. They have very definite and tangible markets, subject to the same laws that govern other marketable commodities. Even labor has its product in the shape of manual work performed for money.

Although market analysis in the past has been mainly concerned with the treatment of material goods, it should not be forgotten that there is no company or individual in business that has not a product, and further, that the market survey is applicable to the field of intangible products as well as to that of tangible ones, and as much profit may legitimately be expected from its application.

Classification of Products. Products have been classified in various ways by economists, but the best plan for the surveyor to follow seems to be one making the division according to the market. In this way a certain uniformity may be obtained. Products destined for the same or similar markets are more likely to have similar systems of distribution and common sales problems. Although every product is different, there are certain points of resemblance.

P. T. Cherington, in his "Elements of Marketing," divides commodities according to the nature of the final sale. He makes three classifications: First, the merchandise for manufacture; second, the merchandise for equipment, and third, the merchandise for household or individual consumption. To this may be added a fourth classification comprising the intangible products for which money is paid—services, advice, medical treatment, amusement, etc.

It is evident at first glance that the method of treatment for these several classes of commodities will be different. First and foremost, the market will be different, then the distributing system will be different, also the sales methods and appeal. In the following few pages, an attempt is made to show the particular problems which demand special consideration from the investigator in attacking the several classifications.

(1) *Merchandise for Manufacture.* The outstanding feature

of raw materials is that their characteristics are already formed and cannot be altered. This is true of mineral ores and silk cocoons as well as wheat, hides, and timber.

In most cases the market is fairly well defined. The consumers of raw materials generally buy direct. Moreover, the surveyor will be apt to find that it is mainly a question of meeting price competition and grading the product.

Cost of transportation is likely to be a large factor with unworked materials. In the steel industry, for instance, either the coal had to be brought to Minnesota, or the ore to Pennsylvania. The latter alternative was adopted. On account of transportation cost, iron is smelted not near the iron mines but near the coal mines.

The surveyor should consider in his own problem whether in the costs of raw materials transportation charges are not highly important, since this is usually one of the outstanding features of goods coming under this heading.

(2) *Merchandise for Equipment.* The distinctive feature of the equipment class of products is that, after being sold, articles of this nature are not consumed in the sense that raw materials are consumed, but still remain in use as part of the productive machinery. Equipment is seldom sold to the man whom we picture as the "Ultimate Consumer." It is sold rather to another manufacturer, who, by its aid, turns out another product or products.

At first sight, the machinery manufacturer has a simpler marketing problem than the firm with a country-wide distribution of some staple commodity, such as packaged goods. It is not a difficult thing for him to obtain a list of all possible users of his product, and to get a very definite idea of their requirements.

Yet the surveyor must remember that, in whatever classification his product falls, in the final analysis, demand will be determined by the ultimate consumer. A spindle in a silk mill is apparently a most utilitarian article, but its sale in the long run depends upon demand for what is practically a luxury. That is, the spindle demand must be traced back to the demand for silk goods.

(3) *Merchandise for Individual or Household Consumption.* Many articles for which market analyses are made will be found

in the class of materials manufactured for individual or household consumption, the style and supply of which are governed by public demand. In the preceding two classes of products, the market was limited and fairly well determined. In this class the appeal is likely to be much broader.

The surveyor may find it convenient to follow out the time-honored division of this class of merchandise into utility goods, style goods, and those combining the two.

A. *Utility goods* ordinarily are bought on their merits. The purchaser pays little heed to appearance, the decisive factor being serviceability. The price of utility articles is usually low compared with similar articles combining a style appeal. Scrubbing powders, salt, matches, and laundry soap are utility articles. The Ford automobile is another example, more than holding its own against the rest of the field because of its low price and the large amount of service it gives in return for the initial outlay.

The investigator will notice a tendency to concentration in utility lines. Theoretically, the company which standardizes its product to the highest possible degrec, sacrificing everything attractive for the sake of utility, would be preëminent in that field. Actually, no company obtains an absolute monopoly. Aside from purely physical obstacles, there is always at least a trace of public taste present.

The Diamond Match Company virtually leads the match industry in this country. In the thread field, there are several large companies. The same is true of the typewriter industry. In the case of salt, essentially a utility article, the price is so low and the weight so great, that problems of transportation tend towards decentralization and local supply.

In the utility field, the surveyor will find that the inherent character of the product will go far to determine its success. If some other company puts out a better product, it is a question of equalling the quality or discounting it by a lower price.

B. *Style goods* are sold to suit the individual preference. The demand cannot be expected to prove so stable as in utility goods and, to offset the larger degree of risk, there is a greater percentage of profit. Women's clothing, jewelry, high-grade furniture, pictures, and millinery are all style articles. Whereas the marketing of utility goods is so largely a matter of meeting

price competition, in style lines people not only buy quality, but also that intangible factor, which, when added to the product, makes it appeal more to the consumer than other products which may be equally useful and efficient.

The surveyor should expect to find keen competition in style lines. But, since there is always a chance to market something different from what everyone else is selling, there are almost always opportunities for small companies. In studying a style line, the question of instability is very important. The thing that is stylish one season is perhaps out of style the next.

The surveyor should find little difficulty in deciding whether his product falls in one or the other of the above two classes, but, for reasons set forth, he should know where it does stand, and why.

C. Few products are either *wholly utility* or *wholly style*. Most manufacturers try to combine the two. Generally speaking, the more style, the higher-priced the article will be. For this reason, the surveyor should attempt to determine as quantitatively as possible the degree of style present. This not only has an important bearing on the price, but also on the market and distributive methods.

As in the case with almost every arbitrary classification, this attempt to classify products will have its disadvantages. All products are interrelated. The raw material becomes equipment, and turns out finished goods. Figure 22 shows the multitude of material products which enter into the modern automobile. No complete isolation of a product is possible. It must be treated in connection with the whole field. In studying an automobile, if the survey were carried out logically, it would be necessary to investigate all the other products which went into the make-up of the completed machine.

(4.) *Intangible Products.* It remains to speak of intangible products. There is no inherent reason why an investigator cannot make a survey for a theatre as well as for an automobile or a feather duster. But so far, little market analysis work has been done along this line. The city of San Diego, California, has used advertising as a means of marketing its hospitality. Several churches have advertised. There is one instance of a public library which increased its circulation through advertising. But there has been too little systematic work along this line.

In many professions, there is the question of etiquette, which frowns upon any undue personal publicity. This chiefly affects

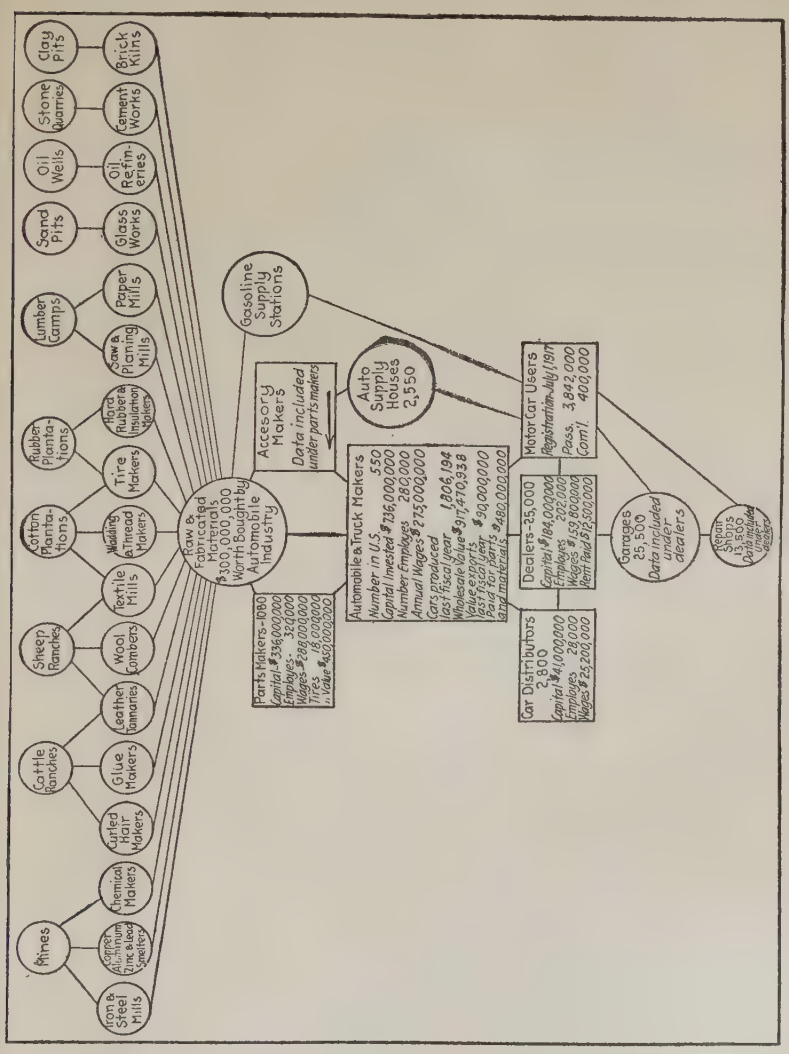


Fig. 22.—Chart showing Sources of Supply and System of Distribution in Motor Car Industry. (National Automobile Chamber of Commerce.)

the lawyer, the doctor, the architect, and so forth. But the barriers seem to be gradually breaking down. Banks are now advertising for depositors, a thing unheard of ten years ago.

In whatever category the product may fall, the surveyor should remember that classifying will be of help only as he can use facts known to apply to that class of products. Thus, in the case of a raw material, he must investigate especially transportation charges; in the equipment, he must ascertain the number of manufacturers using this equipment and also the supply and demand of the raw materials which the equipment utilizes. As regards the products for ultimate consumption, it is proper to investigate both sources and supplies of raw materials, and the methods by which the product is made.

General Characteristics of the Product. When sizing up a product, the surveyor will do well to compare it with an ideal product, as well as with other similar articles. For example, universal joints for automobiles are being made of fabric or cord discs instead of metal parts in rapidly increasing numbers. Theoretically, the fabric disc drive is compact, light, durable, requires no attention, and is easy to replace. Yet when the actual results of tests are compared with the ideal product, it is easy to see discrepancies between theory and practice. Figure 23 shows a tabulation of the ideal and actual qualities of fabric universal joints, as prepared for a recent survey of the subject.

What effect will the physical characteristics of the company's product—its size, shape, design, finish, weight, etc., have on the market problem? What size should a piano be to be suitable for the average modern drawing room? What is the best shape for a medicine bottle? How much should a spading fork weigh to give strength without tiring the user? Each specific product will have special problems of this nature.

In addition to physical, the product will usually have chemical and other properties which should be studied. What chemical change does the climate or weather make? What improvements are necessary, etc.? It is not always possible to foretell with accuracy which one of these facts is going to prove important.

An investigation of the product frequently leads to some slight modifications. Any process of manufacture, once established, is apt to run along the same lines until an investigation reveals this necessity. As it is possible to discover opportunities for improvement in almost anything, particularly when the investigating is done in a scientific fashion, the surveyor will be almost

REQUIREMENTS OF IDEAL DISC DRIVE

Points upon Which to Judge Designs

Ideal Characteristics	Limitations upon Ideal
Performance	
1. Ability to transmit torque.	Ample—but cord disc probably stronger than fabric.
2. Ability to operate through angle.	Limited to 6° or 7°—Climax claims 12°—inferior to metal joint—greatest limitation of this type.
3. Mechanical efficiency.	High—some power lost through stiffness of discs.
4. Freedom from vibration and whip.	Inferior to metal—difficult to obtain without careful balancing or use of centering device.
5. Elimination of shocks.	Superior to metal—said to increase life of other parts of car, such as engine, rear axle, and tires.
6. Safety—no danger of sudden failure.	Equivalent to metal, or better.
7. Quietness.	Superior to metal—not only silent in itself, but said to make other parts quieter.
Physical Characteristics	
1. Compactness.	More cumbersome than metal—interferes with clearances—greater compactness very desirable.
2. Lightness.	Lighter than metal—lightness an increasingly important point as engineers strive to reduce unsprung weight. Lightness of propeller tube important.
3. Sturdy and mechanical appearance.	Inferior to metal, partly because of novelty.
Life	
1. Durability — freedom from deterioration.	Probably inferior to metal—test data not available.
2. Resistance against wear.	Lower than metal.
3. Reliability.	Superior to metal—not liable to sudden failure—gives warning of failure—" will run 10,000 miles after worn out "—
Service	
1. Freedom from attention required.	Greatly superior to metal—no lubrication—may need occasional tightening of bolts.
2. Ease of making replacements.	Superior to metal—only one moving part.
Low Cost	
1. Materials.	Cheaper than metal—few parts, forgings simple—discs most expensive part.
2. Manufacture.	Cheaper than metal—no bearing surfaces—no difficult operations—no great accuracy required—no splines or slip joints—assembly cost low.
3. Upkeep.	Cheaper than metal—service station's problem simplified, since few parts are used, and only one of them is likely to fail—replacements cheap.

Fig. 23.—Chart Comparing Ideal with Actual Characteristics of a Product.

certain to find some. Nearly everyone in the company will have vague ideas as to what changes ought to be made. Customers, perhaps, will have fairly definite recommendations to make. It is for the market surveyor to decide, on the basis of facts, the modifications which should be most helpful.

It is very important for the surveyor at the start of his investigation to define carefully the characteristics, both general and particular, of the product. This definition will be invaluable throughout his work. The very fact of having to define it on paper will go far to define it in his mind, and without a thorough comprehension of the product in its every aspect, no accurate survey is possible. Furthermore, such definitions will be invaluable when he comes to discuss the matter with authorities. Even the executives of the company will doubtless welcome workmanlike exposition of the characteristics of their product, a thing which very likely they may never have had before. Incidentally, such a description may be a tactful way on the part of the surveyor to intimate necessary changes. Thus, although he might hesitate to recommend modifications directly, the necessity for alterations may stand out as perfectly obvious once a truthful definition is represented.

The Number of Products Manufactured. The investigator will rarely come in contact with a company manufacturing but a single commodity. Most of them turn out a line of products. Theoretically, this means that as many market surveys must be made as there are products. Of course, where the difference is only one of size, or of some slight variation, practically one survey will do for all. A prominent leather company, whose main line was machine belting, manufactured numerous other articles from leather, such as straps, leather garters, and shoe insoles. In analyzing its marketing problem, it was found necessary to make a separate survey for each of the minor products, since they were sold through different channels, and the method of approach was quite distinct.

The same is true of by-products, which can rarely be marketed through the same channels as the main product. Often the small company finds it cheaper to turn over the by-product to a middleman than to attempt its distribution itself. The smaller soap companies find this to be the case with their output of glycerin.

As a general rule, the larger the company, the better prepared it is to take advantage of opportunities arising from the occurrence of by-products.

The surveyor may come in contact with a company having to market its product in two entirely different markets. For example, the maker of hand tire pumps sells to the automobile manufacturer and to the car owner.

The automobile manufacturer, as has been proved, buys hand tire pumps for equipment almost entirely on a basis of price. The consumer buys for entirely different motives, such as serviceability, ease of operation, and durability. In the first case, the pump manufacturer's market is distinctly limited to the manufacturers of automobiles, while in the latter case he has for customers the whole automobile-owning public. Yet a survey of the one field would be of little value in determining the possibilities of the second.

Problems such as the above occur in nearly every investigation. The surveyor will find much divergence of opinion, and his judgment should rather be guided by the facts and their relation to the consensus of opinion. What he wants to know is if the company is justified, taking everything into consideration, in manufacturing its present lines. Are there too many, are there too few, or does the present program appear best?

Styles and Types. How many styles and types are necessary? The surveyor will often find this question up for decision. He is usually faced with two decided points of view, that of the sales department and that of the production department.

(1) *The Sales Department.* From the salesman's angle, the most important point is to sell the customer what he wants to buy. That is, the larger line of goods he has, the better fitted he is to make sales. He prefers to work along the line of least resistance, rather than employ arguments to convince the customer that another size or style can be used to the same advantage.

This policy often leads to a multiplication of sizes and styles beyond all measure of actual requirement. This is seen every day in practice. For example, one textile soap company was found under investigation to be manufacturing twenty-seven different varieties of soap while it was shown that seven would

serve the purpose practically as well, while doing away with much overhead expense and adding to production efficiency.

(2) *The Production Department.* It is generally agreed as a matter of theory that efficiency comes with quantity production. In a medium-sized manufacturing establishment, it is not possible to combine operating efficiency with a large number of sizes and lines. It makes too much confusion when it is not convenient to have a department for each particular line. It is not unusual to find the views of the production department on the diversity of the product at loggerheads with those of the sales department.

Of course, the above statements do not always hold true. There are some lines of business, the prosperity of which depends on an ability to turn out diversified products. The greeting card industry is a good example, where novelty and differentiation are absolute prerequisites to success. Jobbing businesses, such as machine shops and cabinet makers, usually depend for their success on their ability to fulfil work with divergent requirements.

But, in general, the surveyor will find that styles and types should be limited to a certain number, and that this number is not necessarily fixed, but that it may vary from time to time in accordance with demand and conditions. He ought to judge this matter, not from the opinions of anyone at the plant, but rather on the basis of the facts as uncovered by the investigation.

Use and Limitation on Use. In general the use to which the product is put determines the motive for its purchase. There is some definite need or desire on the part of the purchaser which makes him want this article. In marketing to the general public, the idea is current that men and women purchase from different motives. A man, it is said, does not ordinarily shop. He buys at the most convenient place, by impulse, by habit, or by brand. A woman shops for some things and buys others where most available. This leads to another classification of products which are marketed to women, namely, convenience goods and shopping lines. If the surveyor's product is intended for feminine consumption, he should consider these carefully:

(1) *Convenience Goods.* These include such things as notions, thread, and other necessities into the purchase of which the question of style does not particularly enter, in other words,

articles in the purchase of which there is no particular necessity for comparing values.

(2) *Shopping Lines.* For clothes, dry-goods such as silks, cottons, woolens, etc., and all articles where it is a question of style, a woman goes to a department store or a specialty shop. Usually she is not satisfied with one. She is said by some to try three before making the final purchase. This has tended to limit the number of department stores, even in the large cities.

It is said people do not buy nearly so intelligently as they once did. In table linen, the guiding factors in purchasing at present are pattern and price. In old days it was necessary to keep a magnifying glass available so that a woman might count the threads to the inch, or the salesman could count them for her while she considered the purchase.

One reason which makes it important for the surveyor to classify his product according to convenience goods or shopping lines is that large merchants, usually department stores, choose to buy direct from manufacturers. For this reason, shopping lines are ordinarily marketed in this way, whereas convenience goods are more often sold through jobbers. Such an important variation in methods of distribution should not escape the surveyor.

Necessities and Luxuries. All goods may be roughly divided into necessities and luxuries, although there is actually no sharp dividing line between them. The classification depends on the personal point of view, the standard of living of the individual concerned, the climate, etc. The best way for the market surveyor to get a line on the essential nature of the product is to analyze the motives for buying. The market has a very definite bearing upon this. In fact, it is inseparably connected with it. Luxuries, for example, will have a market more subject to fluctuations than necessities.

The surveyor will note that civilization tends, as it becomes more complicated, to widen the scope of necessities. Articles continually are graduating from the class of luxuries into that of necessities. The automobile started out as the highest type of luxury and has now become a necessity for many. Many things we now consider necessities were not known, even to our fathers, in their youth. The telephone, the telegraph, the

electric light, and other innumerable examples show how fast the necessity demands of the human race are increasing.

It is often the aim of manufacturers to transfer their product to the necessity from the luxury class. The reasons for this are obvious. The demand for luxuries is unstable. It varies not only with the season but especially with hard and good times. Though the profit is large one year, it is low the next. If manufacturers can put their articles into the necessity class or the semi-necessity class (for instance, silk hosiery) they are assured of a stable demand. Many articles are in the transition stage at this moment, such as electric apparatus for the household, electric irons, washing machines and vacuum cleaners, the tractor, electric lighting, etc.

The surveyor should try to ascertain the degree of luxury demand present in the sales volume of any product. By analyzing the use to which the product is put he can get some idea of it. The use will largely determine the classification: not only the extent of the use, but the character of the use, whether it is consumed by rich and poor alike, or by the rich alone. What special convenience does it give by its use without which the purchaser would feel some deprivation? Would there be a void if it were suddenly removed? Is its use increasing faster than the rate of growth of population?

One way of determining the use is to analyze the economic reasons for the existence of this article.

(1) Is it a new product filling a hitherto unsatisfied want? Not long ago cuticle solvents, soap dyes and deodorants were unknown. To-day great successes are being made in these lines. Is it an old product filling a new use? For instance, roofing paper is used in Hawaii for preventing weeds in sugar fields. Every new invention that is worth while may prove to have great opportunities.

(2) Is the product a worth while improvement on one already in use? If it really is an improvement, there can be little question of its ultimate adoption. It did not take many years for the tungsten filament to supersede the carbon filament in the electric lamp.

(3) Can the product be made more cheaply? Artificial sapphires and rubies can be produced much more economically than

the stone occurring naturally, and have therefore a much wider market, owing to the reduced price range. The same is true of many synthetic substances.

(4) Is there a shortage in supply? Any product which exists solely because of such a condition in that line is doomed to rapid extinction. The war brought back into life many decrepit and defunct products which swiftly passed out of use again when the need was over. For instance, the wooden sailing ship had a brief rejuvenation, only to be discarded when there was again a sufficiency of steel ships.

Once the surveyor has determined what there is about the product which leads people to buy it, he has performed an important part of the task of classification. He knows whether it is necessity or luxury demand that must be met, and he knows whether it meets demand as a new product, an improved product, a cheaper product, or a temporary substitute. Without this knowledge, it would be much more difficult for him to obtain any accurate information regarding the product. He may find that the reason for trouble in the company's selling plans is due to a misunderstanding of the fundamental nature of the product and the reason for its economic existence.

The History of the Product. History, like everything else, must be analyzed scientifically. In other words, it must be analyzed quantitatively. The only history of which the investigator can make practical application is that which can be expressed by a curve or a chart. It is well enough to get the light and shade of the picture, the name of the founder of the company and a woodcut of the shop in which he began operations, but these matters are for the antiquarian rather than for the surveyor.

It is not true that because the past of a product is thus and so, its future is going to be the same. This is rarely the case. There are few products remaining constantly in favor. The product may remain but the style changes. We are apt to take the permanence of many of our daily necessities for granted. Yet it is only necessary to glance for a moment at their past to see that most of them have changed considerably in the last hundred years. Many of them are new-comers; many are so altered as to be almost unrecognizable.

The history of the product will show the surveyor better than

almost anything else whether the demand is likely to be stable or unstable. Some products continue on an even level; others change about almost over-night. Clothespins do not vary much from decade to decade, but millinery changes almost as capriciously as those who wear it.

For advertising and publicity purposes it is interesting to know when the product was produced first, by whom, how and why, whether it was a scientific discovery, how it was accepted by the public, instances of its use and noteworthy changes, but the important service which a study of the history gives is for comparison. It shows the investigator how the use of the product has increased from year to year; it will show him the price changes which have taken place; it will show him whether the product is becoming more or less of a necessity; it will serve as a basis from which he can make predictions as to the future (always remembering, however, that something might happen which would render his predictions worthless).

It is interesting sometimes to glance at the products the company made years ago, and observe the improvements, remembering that the same number of years in the future, this product doubtless will appear just as antiquated.

In all this historical and semi-historical work, the surveyor must not be led astray. He should appreciate it at its true worth, remembering that its primary function is to illuminate the present and not to determine it. The same set of conditions which caused certain events to happen in the past are hardly likely to recur in the future. The surveyor must interpret this historical information in the light of present conditions, which means a very sparing use of historical analogy.

Patents. Patents serve two purposes in modern manufacturing. They protect the product itself, or the process by which the product is made.

(1) A basic patent protecting the product may cover some composition material or be on the product itself, such as a cash register or Line-a-Time device for typewriters.

(2) There are many commodities of essentially long-standing, which are not in themselves patentable, yet which are manufactured by patented processes. For example, a great many textiles are now manufactured by automatic looms, which put in a new

bobbin without the use of a hand. These looms are patented. The idea of a loom is free to everyone, but this particular loom is prohibited by patent.

On whatever grounds the company's patents rest, the investigator should find out what the exact situation is, particularly as regards the question of infringements. Is the company's product circumscribed in development by patents owned by other companies? Are any of these about to expire, and what effect would such an event have? There may be nothing of importance to uncover under this heading, but the surveyor should remember that it is not what he does which will render his survey inaccurate, but what he leaves undone.

The Danger of Being Superseded. A large proportion of those for whom market analyses are made prove to be manufacturers; and it is almost impossible to discover a manufactured product which will not sooner or later be superseded. In the course of business evolution, the product will be modified and the modification will supplant the prototype.

Therefore, if the article under investigation is a manufactured one, the surveyor must examine it carefully and see what changes have taken place in the past and what changes are now taking place or are likely to take place. He will probably find one of the following:

(1) A physical or technical change in the nature of the article itself.

(2) Improvement in the method of manufacture.

(3) Both change in the product and change in the method of manufacture. The paper industry is a good example of the last point. Originally, paper was made of papyrus and parchment, then of rags, and finally of wood pulp. The paper of a hundred years from now may be made of still different materials. Not only, however, has the material changed, but the processes of paper making as well.

Thus, in considering any product, the surveyor must examine the possibility of some unforeseen occurrence suddenly or gradually terminating the life of the product. There are several causes which may bring about this effect, the most important of which are listed below:

(1) *Substitutes.* The surveyor will find that whenever the

price of an article becomes too high, either through actual shortage or artificial manipulation, substitutes tend to spring up. Whether these will persist and become established cannot be foretold without a detailed market analysis of fundamental conditions underlying the industry. The surveyor must determine whether the substitute is better, cheaper, more easily obtained, and what constitutes its advantages and shortcomings.

Not many years ago, cotton mills used indigo for dyeing denims, yet indigoes now have been entirely superseded by aniline dyes. Another case in point is that of aluminum ware, which is making steady encroachments in the kitchen utensil field. Yet, although in some lines, substitutes have sprung up, the original product may retain a portion of the field.

Linen towels survive and hold their own against cotton towels, it has been found, for several reasons, the most important being the popular prejudice in favor of linen. Since this is the case, the selling force naturally caters to this prejudice. Clerks who work on a percentage basis endeavor to sell the lines which net them the biggest commission. Buyers also foster the linen lines because it means an annual trip abroad.

Unlike revolutionary inventions, and new sources of supply, a substitute requires time in which to effect a change. For this reason, the surveyor will discover some intimation of the importance of substitutes for the product, and the imminence of the danger of being superseded.

(2) *Legislation.* If the legislator wishes to make an analysis of possible prohibitory legislation, he must study the political horizon. He should bear in mind, however, that the absence or presence of a protective tariff often determines the prosperity of an industry. In rare cases penal legislation may enter the question. The liquor industry, for example, was legislated out of existence in short order. The Food and Drugs Act has also curtailed the sale of certain commodities.

It will be difficult for the surveyor to determine the effect of revenue taxation on the product. In the case of theatre tickets and tobacco, it has little effect. Taken as a whole, legislation will not radically influence the marketing of the product.

(3) *Revolutionary Invention.* Inventing a far superior article is one of the quickest ways of superseding a product. To cite an

example, among the competitive machinery for making shoes some years ago was a certain burnisher. The United Shoe Machinery Co. perfected and put the Expedite machine on the market. This did the work so much faster and better that it became merely a question of how soon the other machine could be discarded.

It will hardly be possible for the surveyor to be of assistance in any such case as this. If any such conditions exist, it will be a question of finding an article as good as the revolutionary invention in order that the company may survive.

(4) *New Sources of Supply.* Many articles have value because of their rarity. If the surveyor is investigating a substance of this kind, he must try to find out as much as he can about sources of supply. Once new sources of supply are opened in such quantity as to make the article common, the value of it is lost. The market is revolutionized because the purchasing scope is vastly enlarged by the reduction in price. For instance, if there were a commercial method discovered by which lower forms of carbon could be converted into diamonds, then the market would be entirely altered. Similarly, if a process were perfected for extracting aluminum cheaply from some of the enormous supplies of kaolin available, and production were no more confined to cryolite and bauxite, as it is today, the entire metal industry would be vitally influenced.

As soon as supplies of raw materials begin to become depleted, the cost rises, and there is an incentive for the invention and production of substitutes on a commercial scale. As an example, our petroleum resources are being rapidly exhausted, as shown graphically in Fig. 24. Therefore, petroleum, although subject to fluctuations in price, on the average will become more costly as rate of production falls off. Already we have had many substitutes offered, and in the future this number will increase until a commercially possible substitute for gasoline has been found.

The surveyor should be careful to point out any tendencies existing that might lead to a superseding of the product, even although the tendency has not progressed far. It will be easier for the company to cope with the situation at the beginning than after it has reached dangerous proportions.

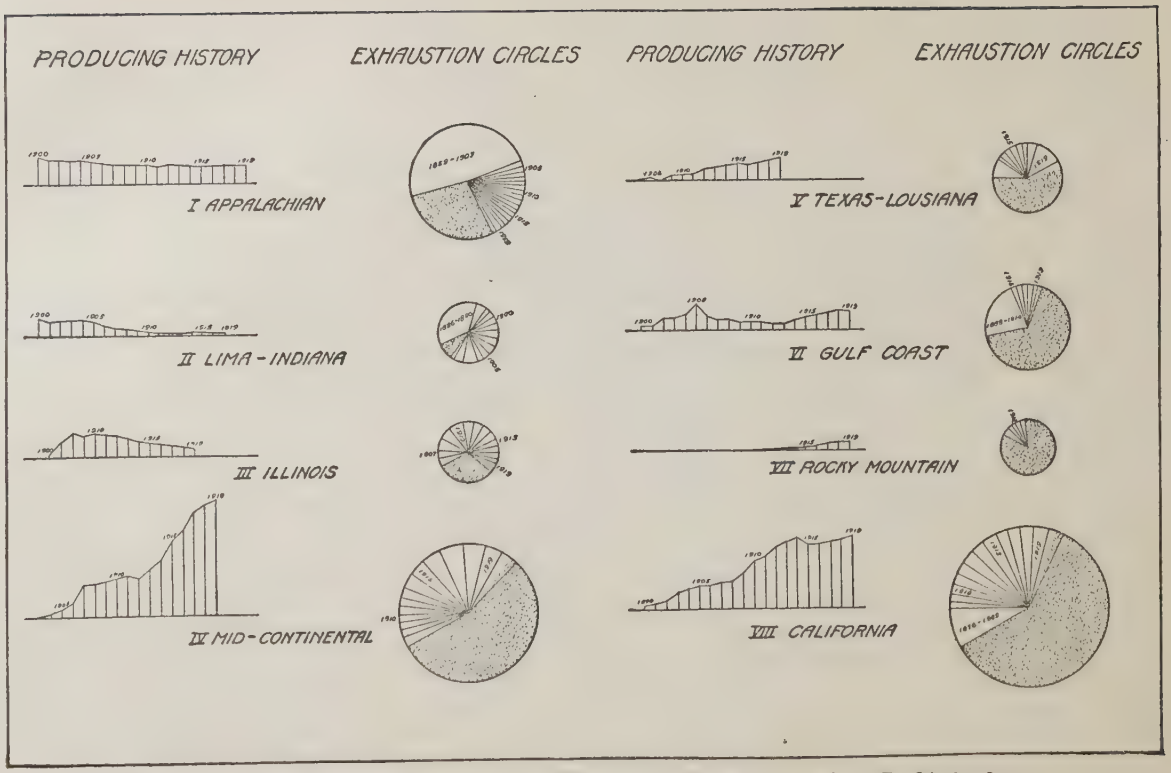


FIG. 24.—Chart showing Depletion of Petroleum Sources. (Arthur D. Little, Inc.)

Packaging. Products were originally packed to keep them from injury and in as good shape as possible during shipment. Practically all articles have to be packed at some stage in the distributive process. Originally they were marketed to the consumer in bulk, that is, the retailer measured out a certain quantity of the product which had come to him in kegs, barrel, box or bag, and gave it to the consumer. There was little or nothing to distinguish the identity of one product over another.

The invention of canning processes brought in the sealed container. As the product could not be sampled, it was necessary to show the nature of the contents on the outside, and therefore a label with a description of the contents was prepared. This idea has now become so prevalent that the common way of marketing goods is to package them, if in any way their size or shape permits. Thus the display value of the package is of great importance to every manufacturer, and it is a point which the investigator must examine carefully.

There is a scientific way of selecting a carton and there is an unscientific way. As an example of the former method, The Beech Nut Packing Company allowed the public to select the carton for their brand of macaroni. They took the twenty-two designs submitted by artists and carefully registered the opinion of consumers on the appropriateness and value of the various designs, and the relative value of the various colors. In this way they made certain that as far as packaging went, their product would be perfect.

The carton has become so important that it is no longer a question of expediency, but a question of analyzing market and product with a view towards selecting the best carton suitable to both. This should be one of the important results of the market survey.

Bulk vs. Packaged Goods. Tremendous inroads have been made by packaged goods in the last decade on the sales of goods in bulk. Not only is this true of staple foodstuffs, sugar, cornmeal, rice, etc., but of other products, such as tooth brushes, toys, and handkerchiefs.

In connection with an exhaustive survey of coffee made by the Chicago *Tribune* in its territory, the relative demand for bulk and packaged coffee among grocers was thoroughly covered. It

was found that the custom of packaging coffee in quantities of one pound or over compelled the smaller purchaser to buy in bulk; that an idea was prevalent that bulk coffee is fresher; that there were no adulterants in bulk coffee, and that it was ordinarily cheaper.

Quite contrary to this were the findings of the Milwaukee *Journal* relative to the bulk and package market for rolled oats. The percentage of bulk oats, as compared with the total sales of all forms of oats, is now 8.9 per cent. in their market. The reason, according to their conclusions, is due entirely to advertising, which has convinced the consumer of the value, quality and other good features of packaged over bulk oats.

The different results of the above two market surveys tend to show that the surveyor is not certain of what conclusions he may reach in regard to the advisability of packaging an article. He will find there are weighty considerations on both sides. It is only when the price of the raw material is very high or very low that there is difficulty with the price of the packaged article. When the bulk article is cheap, price must sometimes be reduced. When the bulk article is very expensive, the reverse must be considered, reducing the size of the carton, or increasing the price. Ordinarily the price of a packaged article does not vary so much as the price of a bulk article, since the consumer of packaged goods is paying for the convenience and the cleanliness as much as for the contents. From the storekeeper's point of view, the packaged articles are also much easier and quicker to handle, and he is frequently inclined in favor of the more efficient method.

What the surveyor must note especially in this connection is the opportunity which packaging a product may offer in removing the article from the necessity to the semi-luxury class. If he can prove that a sufficiently large number of people would buy it, even at the increased price, it might be a very wise thing to recommend packaging the product.

Units of Sale. In some cases, the surveyor will find the product offered for sale in containers the size of which is quite unsuited to the market. The common method of avoiding this is to have a sufficiently large range of units to meet all classes of demand. But in some cases this is not feasible. The more

nearly the size of the product is standardized, the more efficient does production become.

Units of sale are not by any means permanent. They change from time to time with changing conditions of modern life. The stock example of change in unit of sale is the barrel of flour. As pantry space became more and more restricted, the unit size of the flour barrel became a sack of successively smaller dimensions.

In general, products that deteriorate, tooth paste, cereals, etc., are sold in small units, while products with indefinite keeping qualities, such as sugar, flour, etc., are sold in as large units as desired.

Price is an important consideration in determining the unit of sale, but not always. It is said the original Uneeda Biscuit package, which retailed for five cents, was not set at that figure wholly because of the convenience of the price, but also because the package contained as many crackers as the average family could consume before the quality deteriorated. There are cases, of course, where price is the sole reason in determining the unit of sale, such as candy in a vending machine.

If the surveyor has under consideration a product in which containers are not standardized, such as baking powder, it is difficult to judge the different brands, owing to the discrepancy in prices and the wide variation in size of the package. The majority of competing products, however, are marketed in packages of comparatively similar sizes. Prepared paint, for example, is sold in the half-pint, pint, quart, and gallon sizes by practically all manufacturers.

In how large quantities do people wish to buy this product? In the case of a tooth brush, it is one; with men's handkerchiefs or socks, it is frequently a half dozen or dozen. The surveyor may derive some practical advantage for the company by a study of customary units of sale. Along this line, the mail order houses have been very successful in the attempt to sell a number of units together; that is, a half dozen towels instead of one. They do this simply by printing prices on dozens and half dozens ahead of quotations for the single article in their catalogues.

The importance of the unit of sale varies so much with the nature of the product that the surveyor must use his own judgment as to any possible application. He should remember,

however, that the unit is one of the most important of the packaging problems. As far as the market aspect is concerned, it is the chief consideration, because upon the unit of sale in large measure depends the price to be charged.

Shape. It is undoubtedly much more difficult to package a fiddle than a dozen pencils. Yet problems of shape must be constantly met and solved in packaging. In some cases the fragility of the product, owing to its character or shape, may necessitate a particular style of package. Great difficulty has been experienced in packaging eggs, for instance, due to this factor.

The whiskey flask was made to fit the pocket. Following out this idea, the makers of some brands of tobacco have merchandised their product in tins curved to fit the product.

Some products are packaged in queer shapes because of the novelty of the appeal, for example, perfumery bottles, the manufacturers of which constantly are striving after the bizarre.

For a long time, cereals were packaged in oblong cartons, but not long ago, the Quaker Oats Company adopted a cylindrical package, and the same thing was done by Pettijohns. This was in spite of the fact that the cylindrical package took up more room in shipping cases.

The surveyor will find ordinarily that he will have little to do with the shape of the package, unless customers make definite complaint along this line. Economic conditions ordinarily determine the shape of the package when physical obstacles have been overcome.

Standardization. Deviation from a policy of uniform quality in packaged goods may prove fatal if allowed to occur to any great extent. Goodwill is such a delicate growth, and so easily blighted, that the manufacturer's problem is to keep up the quality, and, if possible, make it better. In any event, it should be as represented.

The investigator should note the standard quality of the goods in connection with complaints from dealers. Undoubtedly it is highly important for the company to know if any such condition as this exists and rectify it without delay.

Serviceability. Many cartons are made for service over a long period of time. Cases for playing cards are used during the life of the product. Cereals, crackers, and other foodstuffs are

usually left in the containers until consumed. Some cartons are returned and used over again, such as milk bottles, biscuit tins, kerosene cans, etc.

Of course, from the viewpoint of market analysis, the carton is important only as it serves to help the marketing function, and not from the container point of view. Yet that the container does help to sell the product is shown by the well-known Shaker Salt carton, which is of material assistance in selling the consumer. The surveyor may discover that his product may be made better by some alteration in the container with a view towards rendering service.

Other Packaging Considerations. There are other matters in connection with packaging which may or may not be important for the surveyor, as the case may be. Some of these are discussed briefly in the following few paragraphs:

The advertising and publicity value of the carton is great. What should the character of this publicity be? Should instructions for use be printed on the package or enclosed within? Should the name of the company be prominent or not? Should other products made by the company be advertised on the carton? All these questions and many more may occur to the surveyor

There is undoubtedly need of printed matter on the carton or package. In a great many cases, such as food and drug products, it is not possible to sample the product, and the outside wrapper must convey to the consumer the character and quality of the contents. Many companies show pictures of the carton in their regular advertising as a means of familiarizing the public with its appearance.

Methods have been invented for packaging goods which do away with so much of the manual labor that the cost of packaged goods has been materially reduced. The investigator might note in this connection the methods of packaging this commodity with those used by competitors, and perhaps find out the possibilities of new methods of packaging, even more economical than the present method. Most large scale packaging is done by large scale producers, and, in fact, is more or less confined to them because of cost.

Of what material is the carton made? Is it pasteboard, glass,

tin, wood, or paper? Is the material adapted to the package? It might be possible to find a cheaper material.

What about the package for dealers and jobbers? Will they buy in single lots, by the dozen, hundred, gross, or thousand, and what should be the style, size, and publicity appeal of their packages?

Doubtless there are other considerations, not mentioned here, in regard to the packaging problem which should be examined with care by the investigator. Enough has been said, however, to show him the importance of this phase of the product question. Packaging is increasing steadily in importance and no survey of a product, the nature of which admits of being merchandised by this method, should fail to take into consideration the advantages and limitations of the subject.

General Conclusions. This chapter has attempted to show the surveyor the fundamental nature of the product in market analysis. In the first place, by classifying the product, he may obtain an insight into the general problems affecting that category. He has defined, furthermore, his product according to the market to which it appeals and the use to which it is put. He has analyzed its size, shape, color, and its other physical characteristics. He knows the extent of the luxury demand present. All this has been in the nature of definition. He has gone farther. He has investigated the policy of the company as it affects the product. He has investigated the lines and sizes, the styles and types, the related character of the products, the by-products, and other factors dependent on the program of the company.

He also knows something of the history of the product, its technical and mercantile development. He has information on the patent situation, and lastly he has investigated thoroughly the packaging problem with its various subdivisions. He is now in a position to go ahead confidently, knowing that the foundations are laid upon which he can build his survey.

CHAPTER IX

THE COMPANY

Outline

What does the history of the company show?

- (*a*) What has been its rate of growth?
- (*b*) How fast and how far have its markets expanded?
- (*c*) How has the organization developed?
  - (1) By evolution?
  - (2) By application of industrial engineering principles?
- (*d*) What has been the company's policy?
  - (1) Has it been centered on production, sales, or what?
  - (2) Has it been opposed to innovation?
- (*e*) What has been the financial history?
  - (1) How is it capitalized—bonds, stocks, notes, etc.?
  - (2) What is its credit record?
  - (3) How successful has it been with collections?
- (*f*) What success has it had with various products manufactured? Which ones have been failures? Why?

What is the present organization of the company?

- (*a*) Who are the personnel and what is the relation between
  - (1) Executives?
  - (2) Foremen?
  - (3) Workmen?
- (*b*) Is company centralized, or is control largely departmental?
- (*c*) How much coöperation exists between departments?

What do the company's records show?

- (*a*) The purchasing department.
  - (1) Quantities of materials purchased.
  - (2) Price paid.
  - (3) Quality.
  - (4) Quantities on hand.
  - (5) Sources of supply.
- (*b*) Production department.
  - (1) Labor statistics.
    - (*a*) Labor turnover.
    - (*b*) Labor efficiency.
    - (*c*) Rates of pay.

(2) Machinery.
  (*a*) Efficiency.
  (*b*) Output.
  (*c*) Range.
(3) Shipments.
(4) Miscellaneous cost statistics.

(*c*) Sales department.
(1) Changes in sales volume.
  (*a*) By salesmen's territories.
  (*b*) By states, counties, cities, etc.
  (*c*) By lines of goods.
  (*d*) By individual salesmen.
(2) Volume of new orders.
(3) Permanent and temporary changes in sales volume.

What is the company's plant?

(*a*) Geographical location.
(1) Shipping facilities.
(2) Proximity to market.
(3) Proximity to raw materials.

(*b*) Capacity.
(1) Normal.
(2) Emergency.
(3) Minimum at which profit can be made.

(*c*) Equipment.
(1) Character, modern or old-fashioned.
(2) Condition.

(*d*) Age.

CHAPTER IX

THE COMPANY

The surveyor will find that methods of analysis suitable to the study of the product cannot be applied in quite the same way to the study of the company. Certain set questions may be applied to the product with good expectation of success, but when approaching the company which makes the product, the investigator is confronted with a more difficult problem. The product is, in most cases, a definite tangible thing which can be handled, measured, and weighed. The facts concerning it can be ascertained with comparative accuracy. But the very word company implies a human element, and it is this factor of uncertainty with which the analyst from now on will have largely to deal.

Psychologists have shown that even human factors may be reduced to more or less set rules. But the difficulty lies in obtaining sound evidence upon which to base deductions. There are few companies which do not think they have many things to conceal, and it is these things which are likely to be the meat of the whole proposition.

It is true that a large proportion of the really vital matters can be disposed of by a more or less routine series of interviews. But mistakes are likely to happen, and false impressions recorded. The difficulty of getting information about a company is brought forcibly home to the surveyor when he realizes that there are comparatively few companies which thoroughly understand their own affairs. Whether they do or not, the surveyor should make it his province to grasp them thoroughly, at least in so far as they come within his sphere.

The Company's Marketing Function. Every company acts as interpreter of the public's desires. To be successful, it must fill wants, and to be preëminently successful, it must prepare itself to fill these wants in advance of their occurrence. That is, it must be able to predict what the public is going to want.

The surveyor probably will find the business man likely to regard his company as the all-important consideration. A group of buildings, filled with equipment and material, operated by a skilful force of workers, is to his mind a picture of completeness. Yet this is merely the structure which has arisen to carry out the function of marketing. In reality, the company, regardless of how extended its facilities and its organization, is of secondary importance. It is but a means to an end; a cog in the machinery of industry and not the whole machine. It stands midway between the raw material on the one hand and the finished product on the other.

Most companies, particularly those of long standing, are prone to consider themselves dominant and masterful agents. They turn out whatever product seems best to meet with their approval. They feel it their prerogative to force it upon a public which has no discrimination to refuse it, and which cannot do without it. The surveyor should make sure that his own grasp of economic principles is sound enough to enable him to give counsel against this attitude which must, sooner or later, prove ruinous.

A manufacturing concern merely performs upon raw materials that fabricating function which the public insists that it shall perform. The company has practically no volition or choice in the matter, except in so far as it may mold public opinion by educational or other methods. The moment companies try to go counter to public demand, they run into danger.

Every company is surrounded by a market, which is its breath of life. It stands, in fact, midway between two essential markets, that from which it purchases raw materials, and that to which this same material is sold after it has been converted into consumable goods, by the joint efforts of labor and equipment.

Thus, every company's problem proves to be, in the last analysis, a marketing problem. The surveyor may, accordingly, apply to any of them the following two questions:

1. *What does the market require?*
2. *How are its requirements going to be filled?*

He will find hardly a point arising in any company which cannot be reduced to these lowest terms. All departments, whether sales, purchasing, or production, are but humble contributing factors, existing only to assist in the solution of these questions.

The Personal Equation vs. Company Policy. What pitfalls beset the company in the attempts of its executives to cater to the market? Companies often seem to differ in accordance with the temperament of the men who founded them. Various types of mind express themselves in different ways. Men with the salesman type of mind, for example, originate certain kinds of business which afford them free play for their particular gifts. Commission houses and advertising agencies are usually organized by men who are primarily salesmen. Men with financial minds go into banking and insurance, while others of mechanical bent go into manufacturing.

Even in the average manufacturing business, the surveyor may observe that one department is stronger than the others. In that case, he will doubtless find another which is correspondingly weak. This lack of symmetry often arises from a tendency of the executives to be more interested or more expert in one function of business than in another. For example, a company the executive talent of which runs along mechanical lines is apt to produce a large number of articles which have been evolved one after another, and apparently as the result of individual genius. Although these products may in themselves be valuable, they may be ill adapted to the sales facilities of the company. Men in charge of organizations of this type are inclined to forget that selling is just as important a part of the business as manufacturing, and that it is absurd to build an entirely new product unless it may be sold through the same channels of distribution as the rest of the products, or unless entirely new sales facilities may be provided expediently.

On the other hand, the investigator may encounter a manufacturing concern excelling in sales talent, and less well equipped with manufacturing talent. In this case, he will probably find a well-developed sales department, which is attempting to dispose of almost any merchandise appealing to its customers. The controlling idea in such a company seems to be to find something to sell through its organization. How to produce the commodities for sale is to them a matter of entirely secondary importance. A certain company of this type manufactures an automobile tire pump and an automobile lift jack, simply because both of these articles appeal to practically the same kind of buyer, and because

they sell through the same channels. These two products are so different from a manufacturing point of view that, except for the reason above stated, they have no excuse for being built in the same plant.

The company in which sales and production functions are so correlated as to be supplementary should prove most successful. Whatever conditions may exist, the results of the market analysis should determine the true status of affairs. Delay in filling orders, defective goods, poor packing, etc., should denote to the surveyor something wrong with the company's products, and failure of salesmen to make proper calls and keep in contact with the trade indicates weakness in the sales mechanism. The company is often not aware of such weaknesses until they are brought out by some outsider such as the market analyst.

To sum up, the surveyor should remember that a great part of market analysis is the analysis of men. He should study particularly the dominating personalities of the organization, study their training, experience, and bent, with a view to learning whether there is a leaning toward one business activity at the expense of another. Tendencies of this sort are often hard to discover, and are harder still to counteract. Thus, to preserve his unbiased insight, the surveyor should avoid becoming too closely associated with and influenced by the company's "grand old man." So great is the danger of such an obsession that, in at least one instance, the surveyor was not permitted to meet the company's leading light, and for fear of his becoming too much imbued with its history and stereotyped method of doing business, he was permitted but an hour to go over the plant, and instructed to obtain his data almost entirely from external sources.

History. A knowledge of the company's history will be of assistance in getting a line on such tendencies as those above mentioned. And in other ways some company history will prove of value. Most executives, however, are inclined to over-emphasize the importance of history. They refer to it on every occasion. In many cases, the surveyor must exclude, as irrelevant, narrations of what happened to the company in years past.

Those matters of history which are of prime importance are those which have been kept track of through actual records. Unfortunately, records have not been kept in many cases over a

long duration of years, and what records are on hand are not always those best suited to the surveyor's purposes. Records may often be found which will yield quantitative data along the following six lines:

1. Growth of Company.—The growth of a company measured by its gross sales or by other statistical means is always valuable to the analyst. It establishes the position of the company in the

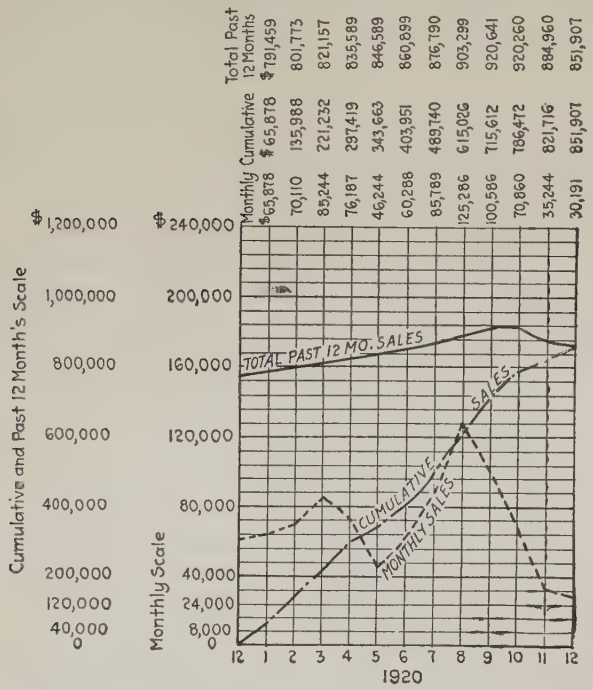


Fig. 25.—Chart showing the Company's Growth as Indicated by Sales. (Ernst & Ernst.)

industry, and indicates whether it has obtained its share or more than its share of growth. It establishes the normal rate of expansion and allows him to make a prediction of what future growth should be. Almost any history which can be narrated in terms of figures will serve as a basis for forecasting trends of growth. These figures should, of course, be charted in some such manner as illustrated in Fig. 25.

2. Growth of Market. The man who is making the investigation can study the extension of the company's markets to the best advantage at this juncture. Few companies spring full-fledged into the commercial arena. Most of them are slow outgrowths of small beginnings. This growth, also, should be charted territorially. Account should be taken of the company's customers, who they were, especially the big ones, how many of them still remain on the books, etc. These considerations will be treated in greater detail in the chapters on Customers and Markets.

3. The Organization. Most companies are, as above stated, merely evolutionary, or perhaps it would be better to say, have been so, since many of them are now organized with a view to the future and not merely to the present or past. But it is still necessary to study the organization and its history. Perhaps the surveyor can obtain a series of organization charts, if research of this sort promises to have a bearing upon his problem. It is difficult, perhaps, to see what this has to do with marketing, but the statement must be repeated that everything in the way of company activity has to do with this all-enveloping function.

4. Finance. Finance is one of the serious limiting factors which must be considered in connection with the company. It can usually be divided in a general fashion into:

A. Securities. Under this heading it is well for him to make a note of issues outstanding, whether stocks, bonds, or notes, etc.; also of the number of holders, market prices, fluctuations, etc. The latter factors will usually show the company's financial standing as well as anything, for although they may be influenced by conditions in the industry at large, yet they will also reflect the credit of the company itself, when compared with the average price of the securities of other companies in the same class.

B. Credits. One of the most valuable operating assets of a company is its credit. The investigator should not be surprised to find any unstable financial condition reflected through the entire organization. Whatever he discovers in the credit situation should be carefully noted. He may find, for instance, that there are countless small leaks, since it is often hard to collect petty cash items. Big credit accounts are always carefully investigated. This matter of credit is only one of the many seemingly extraneous matters that have to be examined.

C. Collections. Since the function of the collection department is closely allied to sales, it should be given careful scrutiny. There are times when it is advisable to grant long-term payments to obtain desirable business, and there are times when it is advisable to curtail them. These periods have a definite connection with the state of the market. For instance, a period of financial stringency is not always the time to insist upon prompt payments, nor a time of prosperity the occasion for extended credit. The surveyor may find it helpful in this connection to compile a chart showing the company's credit losses, etc.

5. Unsuccessful Products. Another matter of history of possible value is a discussion of unsuccessful products put out by the company. Why did they fail? Was the trouble with the market or with the product? Was the failure attributable to the sales department, to the production department, or to the development department? Is there still a demand for this innovation, and would it fulfil present needs if again produced, and properly marketed? Products sometimes fail for unusual reasons. Farm tractors were unsuccessful in the Philippines as long as no suitable provision was made for service. Remoteness from the source of supply made specialized service and a complete stock of parts essential to the marketing of these products. Many a surveyor has received his master inspiration from a ramble through the loft or basement where unsuccessful models are stored.

6. Ordeals. The recent ordeals which a company has passed through rarely fail upon careful study to have a direct bearing upon the company's marketing problem. These have served as practical experience under fire for the officials of the company, and, like returned soldiers, they never tire of relating their experiences.

There is, of course, danger that the recent obstacles and catastrophes will loom so large as to obscure the true panorama, and the surveyor should try to make allowances for the purely ephemeral obstructions.

In conclusion, it seems obvious, from a review of the above phases of the company's history, that there can be no hard-and-fast rules for analyzing the various factors which must be considered. The surveyor must obtain his facts after the manner of the engineer; he must record them with the painstaking accuracy of the scientist; and he must interpret them after the manner

of the long-experienced business man. Nothing but experience can teach him the habits by which such men work; but if he learns their several methods of operating, and applies them in their proper places, he will only then be able to master his difficult task.

Personnel. As previously stated, no adequate understanding of any company is obtainable without a first-hand knowledge of the men who compose it. The surveyor ought to get acquainted with the chief executives; but he ought not to limit himself to any one man or group of men in the organization. Even to meet the men in other departments for a few minutes is better than nothing. If the department heads are not available, their assistants should be consulted.

Every market presents so large a problem that there is danger of treating it in a one-sided manner. The menace of getting a biased viewpoint is more to be feared than anything else in work of this kind.

The investigator should remember that the personnel is not confined to the executives and the foremen, but includes the workmen. Whether the latter are skilled or unskilled, male or female, satisfied or disgruntled, highly paid or underpaid, efficient or careless, they cannot be ignored. They make an important basis of comparison, and allow the formation of a ratio of value to conditions in other companies.

The Company as a Whole. Before undertaking a discussion of the various departments, it is good policy for the investigator to consider the company as a whole and the relations of the various departments to each other. This he should do early in his investigation, while he sees the whole scheme in perspective, and as a unit. Here, as always, he should consider the company in terms of the market. Is this company fitted to make this product and to merchandise it? This same question may be applied to each of the company's departments. Do they all stand this acid test of adequacy? Wherein do they fall short? There may be some seemingly minor factor which will be to blame. A retail house which was losing money was surprised by the discovery that thirty per cent. of charge packages was returned. Once this oversight was rectified, the concern was brought back again to a profitable basis.

The relative importance of the purchasing, the production, and the sales departments of various businesses tends to show considerable variations. For instance, where the manufacturing process adds little value to the raw material, the purchasing end must be managed with the greatest economy. This applies to many cheap articles of a competitive nature, particularly necessities,—soap, matches, staple food stuffs, etc. Where the manufacturing process practically makes the value of the product, such as clocks, precision instruments, lenses, etc., the purchasing is far less important than production and labor. The relative importance depends upon the percentage of material cost entering into the final cost of the product. The significance of the sales department depends in some measure upon competition and upon unfilled demand. In many cases purchasing may be practically done by the sales department, or it may be necessary to receive its permission before actually purchasing.

Finally, the surveyor, particularly if he is a novice, should be warned against the danger of examining the various departments individually, before he views them collectively. The first thing to study about any company is its coördination.

The Purchasing Department. The study of markets is as much a problem for the purchasing agent as for the sales manager. Although in detail the approach to their market studies is somewhat different, the fundamentals are the same in both cases.

The surveyor must not forget that a market is a place where one buys as well as sells. Although the purchasing agent wants to pay as little as he must, and the sales manager obtain as much as he can, in all but a few isolated instances the day has probably gone when the purchasing agent looks merely upon a transfer of goods from the buyer's standpoint and when the sales manager neglects to look at things from the standpoint of his customer.

Purchasing is usually done either in quantities for spot delivery, or contract for future delivery. It may be done independently or on requisition from the production department. It may be done by a combination of all these methods.

Market analysis for the purchasing department is in a sense prediction. It is very important to know at specific times whether buying should be done on contract or goods purchased outright. How far apart the two quotations may range is shown in Fig. 26.

Although it is true that the war was the cause of this fluctuation, there is usually a difference of such degree that material savings may be effected by the wise purchasing agent.

The investigator will get from purchasing records much information as to raw materials, their sources, price fluctuations, etc. The main problem, however, is to observe how well the functions of purchasing are correlated with those of sales and production. He should remember that each department of the company, is, after all, but a cog in a machine, and that the motion of one should be regulated by that of the other cogs.

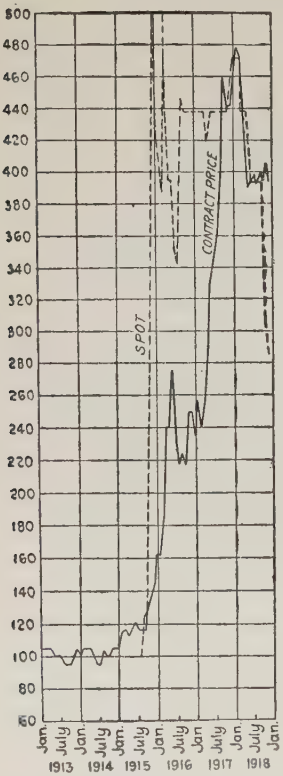


FIG. 26.—Chart Contrasting Contract and Spot Prices. (Government Report.)

The Production Department. After the materials have been purchased, they must be manufactured. This business of production has been organized to the *n*th degree. In so far as any department of the company can be made perfect, the production department is apt to be that one. In all probability, the surveyor should find a great many records available for study. Whether they will be of interest to him will depend largely on the scope of his investigation. Among others, he may find labor statistics, machine records, records of output and records of shipments.

He will also find figures on the cost of production. It may be necessary for him to study these statistics in order to reckon the saving effected by increased production. Instead of making 1000 pieces at ten cents, suppose it were possible to make 10,000 pieces at five cents. The question of course would be if 10,000 pieces could be made at a sufficient margin of profit so that actual profits would be greater. Since the purpose of the market investigation is usually

prefatory to increasing sales, this matter of production is of great importance. Not only must the surveyor know how much it will cost to increase production, but how much production can be increased economically.

In studying this question, the surveyor should make a chart such as is shown in Fig. 27, of the relative cost of the various component parts of the product. In the illustration, it will be seen that the body casting of the jack is by far the greatest cost. If it were possible to discover some cheaper method of making the major parts, then the cost of production would be greatly reduced.

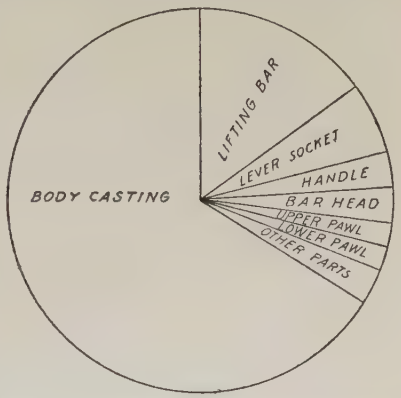


FIG. 27.—Relative Cost of Components.

The business man should not be surprised if the investigation is, to a considerable extent, covering the ground supposedly sacred to the industrial or "efficiency" engineer. But no consideration of markets is complete or even possible without an understanding of production. The production engineer may possibly do his work effectually without a knowledge of sales, but the market engineer cannot operate without a grasp of the outstanding features of production. The surveyor should be made to feel that he is expected to dip into all phases of the company's activity. On the other hand, he should realize that he is being placed in a position of extreme trust. It should be his aim to accept his remarkable opportunity to be a coördinating influence.

The Technical Work. Every progressive company has a technical department in some form or other. Here again, the surveyor should be made welcome. Technical research and market research should be done in conjunction with a well organized marketing plan. Aimless research may sometimes bring startling results, but these are not always of a commercial nature. The American Telephone & Telegraph Company has many experts employed in technical research. To each man is given a definite

problem to solve, the solution of which will be of specific benefit to the company. After the scientist finishes with it, the men at the practical end of the business pass judgment upon it. In this way, every phase of the subject is thoroughly examined.

The surveyor should study this arm of the company's service because experimental work in most companies is carried on without due regard to an understanding of markets. If as much pains were taken in analyzing markets as in perfecting the products intended for the markets, fewer companies would meet with failure. For the best results, technical research and market research should go hand in hand.

The Plant. The plant is the shell which contains the company. A visitor is apt to judge a great deal by the company's plant, and particularly from its appearance. This method of observation has as much value as judging a man by the clothes he wears. It is true generally, but not always.

In considering the plant, the surveyor should study the geographical location, the size and capacity, the equipment and the plant organization.

How is the plant situated geographically, and does this matter of location handicap or further production? This question may be of great importance to the investigator. He should consider it in relation to transportation facilities, proximity to markets, raw materials, and labor, etc. It is one of those problems which the specific conditions in his investigation will make important or not worth considering.

How is the company's plant suited in size and capacity to its product and market? For what other kinds of manufacturing are the company's plants fitted? What is the normal capacity of the plant, and what is its maximum capacity? Are new buildings needed? The surveyor can never tell in advance which one of these factors may be of importance, since they all may have a bearing on the market. Oftentimes, merely to see such facts in writing will suggest a direct marketing principle.

Is the machinery up-to-date? Are the buildings modern and in good repair? How does the company's equipment compare with that of competitors? The condition of the machinery, the type and the model, the power used, may make such a difference in cost of production as to affect the whole marketing problem.

Does the plant function smoothly, or is there friction? Do the heads and foremen of the different departments coöperate with each other? Has there been any experience with scientific management?

The above questions are merely suggestive as to what the surveyor should ask himself when entering the plant. Many other points will occur to him during his inspection. Whatever impressions he may receive, however, he must check up by other facts at his command. He should ask himself: " Even although it appears on the surface that such and such a thing is wrong, how does it actually work out?"

The Sales Department. Without question, the sales department is the most important division of the company for the surveyor to study. Owing to its importance, the subject of sales has been treated at length in a later chapter. However, it will do no harm to state here that the surveyor should get much specific information from the sales records. He can get volume of sales and can determine if demand has fallen off or increased. If the records have been kept geographically or territorially, he can determine exactly where the increase or decrease is. Most important of all, through these records, the surveyor in many cases may determine the permanent and the temporary causes for changes in sales volume.

Conclusions. Every company has plans for the future. These are usually formulated at the expense of careful thought on the part of the executives, and have a very distinct connection with the task of the market analyst. Yet, if the findings of the surveyor are to be of any value, they should be applied to the company's plans. These plans should be predicated upon his findings, rather than that his work should be based upon the plans.

In studying the company, as in any kind of commercial research, you have general facts and specific facts to deal with. In the company you have material facts on the one hand to analyze and personalities and other such elusive considerations on the other. Of course, the personalities in the company are absolutely a part of its problem, and no market survey which is suitable for a given company will fit the same case in the event of a complete reorganization and a substitution of new men for the old. In other words, the surveyor must have practical

common sense enough to judge the men with whom he is working and not put up to them something quite beyond their ability to accomplish.

But, in general, in the company, even as with the product, the specific facts should be held to as closely as possible. It will be seen in the following chapter, and in others to come, that once the surveyor gets beyond the confines of the plant, he will find of necessity that he is dealing with a great mass of generalities and that the opportunity for obtaining specific data with accuracy becomes greatly restricted.

CHAPTER X

THE INDUSTRY IN GENERAL

Outline

What is the volume of production in the industry?

(*a*) Is it decreasing or increasing?
(*b*) How does it compare with the company's record?
(*c*) Have there been marked fluctuations in production in the industry?

What is the value of production in the industry?

(*a*) Is it decreasing or increasing?
(*b*) How does it compare with the value of the company's production?
(*c*) Have there been marked fluctuations in the industry?

How does the industry rank in investments?

What is the number of producing firms in the industry?

(*a*) Has this number decreased or increased?

How many people are engaged in the industry?

(*a*) What is the percentage of women and children?
(*b*) How does the average wage in the industry compare with that paid by the company?

What is the labor situation in the industry as pertaining to

(*a*) The degree of unionization?
(*b*) The amount of unrest?
(*c*) The employment of women?
(*d*) The foreign element?

How dependent is this industry on conditions existing in other industries?

What is the effect of economic trends on the industry?

(*a*) Are there influences at work tending towards localization of the industry due to
  (1) Proximity to raw material?
  (2) Fuel supply?
  (3) Labor?
  (4) Transportation facilities?
  (5) The market?
  (6) Other factors?

What is the geographical grouping of the industry?

(*a*) How is the company located in respect to the remainder of the industry?

Is there a tendency towards integration of functions?

(*a*) Is it directed towards control of raw materials?
(*b*) Or towards control of retail outlets?

Is there a tendency away from or towards combination?

(*a*) Is size an advantage or disadvantage in the industry?

What is the effect of foreign progress on the industry?

(*a*) Foreign methods of manufacture.
(*b*) Sources of supply.
(*c*) Cheap labor.

CHAPTER X

THE INDUSTRY IN GENERAL

For any person conducting a market survey, the general industry, of which his company forms a part, serves as a background for comparison. Ordinarily, there will be little difficulty in obtaining statistics on this topic. The government has made exhaustive studies of many industries, and so also have many trade organizations and trade papers. These statistics are readily available. In the majority of cases, gathering the information about the industry will be largely a bibliographical task.

Following are some of the more important results which may come from a study of the industry in general, and which will lend themselves easily to comparison with figures of a similar nature obtained from the company.

Statistics of the Industry. How much is produced in the industry? Is volume of production increasing or decreasing, and how does it compare with the volume of production of the company itself? Has the company's rate of growth, in other words, been proportionate to that of the industry?

Volume of production in an industry lends itself easily to charting. Fig. 28 shows the production in the petroleum industry. Here, domestic production is shown in comparison with that of the world. On the same chart the production of a single company might also be plotted.

The surveyor should expect to find the survey for both the industry and the company running fairly parallel, although the company's growth ought to show a somewhat sharper rise.

Charts of this nature will give the student an excellent idea of the broader aspects of his task, and they are good to come back to and contemplate after a day's siege with little details. There cannot be too much repetition of one statement—that the surveyor's main success depends upon maintaining his perspective, his true sense of proportion.

No single chart, of course, will give him a complete panorama. Volume of production alone is not always an accurate index. Value of production may be more important than volume. A comparative chart, showing the relative values of production in the industry and in the company, will throw some light on the past success of the company in merchandising profitably its products. The company's value of production may often be taken as an index of the excellence of the sales department.

There are, of course, other statistics which will throw light upon the character, status, and history of the industry. The

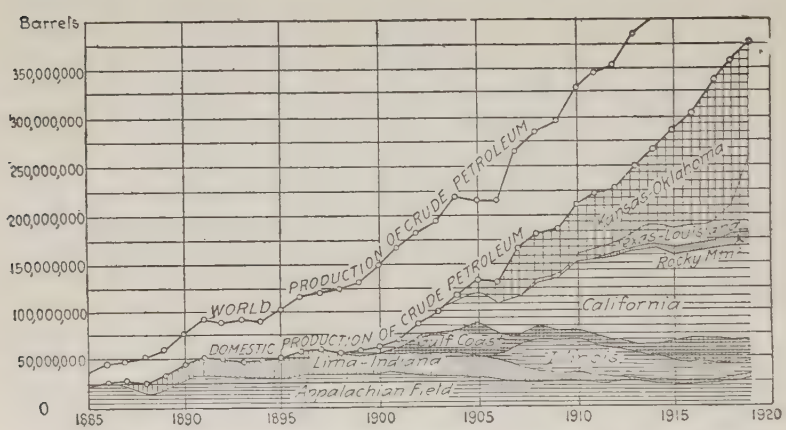


Fig. 28.—Petroleum Production Charted. (Arthur D. Little, Inc.)

amount of money invested in it may often be ascertained, for example. Its general rank among the other industries of the country may prove enlightening. Figures may be obtained for most industries from the Census of Manufactures. Here, as in the previous two sections, a chart may be made showing the growth of investments in the industry over a period of time, and the corresponding growth of the company. The investments in the industry nationally denote the purchasing power of the industry as a whole. The investments in the company denote its relative standing.

Economic Tendencies. Throughout his work, the surveyor should keep in mind that the gathering of data is not an end itself. A graph showing the growth of an industry is of no

particular value, as far as immediate profits are concerned. It is only one of the foundation stones. But it is a firm one. Upon it can be based estimates as to future growths. These broad tendencies, indeed, are almost invariably studied in order to serve as a basis for predictions.

Broad, epoch-making tendencies ordinarily cast their shadows before. By studying the industry, the surveyor is obviously in a position to form a better judgment on future developments than as if he confined himself entirely to the company. A study of the aeroplane industry indicates the probability that mail carrying will eventually be by aeroplane. He can observe whether these tendencies away from present practice are gaining headway, and if so, how much and how rapidly. No mere study of the company will give him any quantitive data on such a development; but examination of statistics of the industry will put him in a better position to discuss the company's plans, and he will be able to tell whether they are running with the trend of change or against it.

There are many economic tendencies visible today, some of them showing signs of becoming permanent, others merely ephemeral and already fading out of the business perspective. Some of the very vital problems before us, which will remain for several years, at least, are those of the middleman and his future, of competition as opposed to monopoly, of integration of industry, and of the progress of unionization of labor. We have also the most important question of the part our industries are going to play in international commerce. All of these tendencies deserve attention in any long-range survey.

In connection with the industry in general, the surveyor should remember that industry is constantly undergoing periods of prosperity and depression. Business progress is marked by ups and downs. At the beginning of every period of prosperity, markets become active. There is a call for merchandise. The wheels of production are set in motion. Goods are turned out in large quantities and with ever increasing momentum, which continues until the need behind it is satisfied. But even after the demand has been filled, the inertia of production keeps on, until the point is reached when the action of the law of supply and demand effects a drop in prices. This, in turn, makes it

increasingly difficult for the producer and manufacturer to turn out commodities at a profit. The result is a glutting of markets, a curtailment of production, and a stringency of money. A corresponding period of depression thereupon sets in. Factories close, there is much unemployment, a decrease in commodity prices and a decrease in wages takes place. Finally, when adversity has made men more industrious and less wasteful, and when the stock of commodities is exhausted, the cycle recommences.

Owing to the improvement in facilities for transportation and communication, to the ever more aggressive competition and the insatiable desire for material wealth, business has become national rather than local, and international rather than national. As a result of this, and also because conditions in all countries are seldom in a state of depression at the same time, the ups and downs of business are less marked than formerly. The production of goods is becoming more and more constant throughout the world. Since markets fluctuate in obedience to supply or production, they too, are less given to violent movements, and it is hence becoming more and more difficult to understand every complexity and peculiarity of marketing problems.

Combination and Integration. One of the most significant of these economic trends as far as market survey work is concerned is the tendency in some industries for certain large companies to control them, from the raw material stage to the time of completion. The surveyor will find cases where this so-called process of integration is taking place. Among those manufacturing establishments where prosperity depends in large degree upon their constant and uniform supply of raw materials, many concerns are reaching out and acquiring their own sources of supply.

In a similar fashion, some companies are enlarging their activities, and acquiring retail stores in which to market their products. The United States Steel Corporation has purchased ore lands and coal lands to such an extent that it is now in a manner independent of sources of supply. The Douglas Shoe Company and others have established retail stores to take care of their production. The chain grocery stores, of which the Great Atlantic & Pacific Tea Company is the largest, have taken over

the warehousing function of the jobber, and in this way are able to offer their goods at prices considerably lower than those of local and independent competitors, who deliver their goods.

The important point for the surveyor is to isolate the particular tendencies which are taking place in his industry. It may not be so apparent as the examples cited above. But whatever it is, he may be sure it will prove to be of vital importance and may change his whole views on the market survey.

The tendency for competing companies to band together is a matter of parallel importance to the movement toward integration. This impulse to combine for better operating efficiency and greater profits has been a matter of worry to successive legislatures and administrations. Many of our large corporations are the results of combination. The United Drug Co. is an association of druggists, the United Shoe Machinery Co. of shoe machinery manufacturers, and many other examples will come to mind.

The surveyor will observe that in new industries, in which supply has not yet caught up with demand, there is a wide variety of producing companies. As the original market limits are approached, the stronger companies absorb the weaker ones. It is a true case of survival of the fittest. As an instance, see Fig. 29, which illustrates the tendency in the match industry. There were 75 manufacturers of matches in 1869, 27 in 1889, and 20 in 1914. Another example is the motor truck industry where the process of combination has made much headway.

If the industry shows a tendency towards combination, the small company is apt to be at a disadvantage. It cannot purchase in such large quantities, it cannot sell over so wide a territory, nor can it produce under ordinary circumstances at so low a rate as its large competitors. It may, of course, possess advantages, as the surveyor will find, which will more than make up for these deficiencies. It may cater to a specialized luxury demand or a style demand, and in this case it is quite conceivable that its small size would be a positive advantage.

There are, to be sure, some industries in which the reverse of this process is taking place. Expansion and growth are so rapid that companies spring up like mushrooms. Chart, Fig. 30, relates to industries in which the number of competing units is greatly

on the increase. It is doubtful, however, whether there has been any diminution in the size of the average component company.

The student should also ascertain the number of concerns in that particular branch of the industry in which his company specializes. In the textile industry, for instance, there is much variation. In the cotton industry alone, there are thread mills, denim mills, canvas mills, sheeting mills, etc., none of which is in active competition with the others. Whereas all the cotton

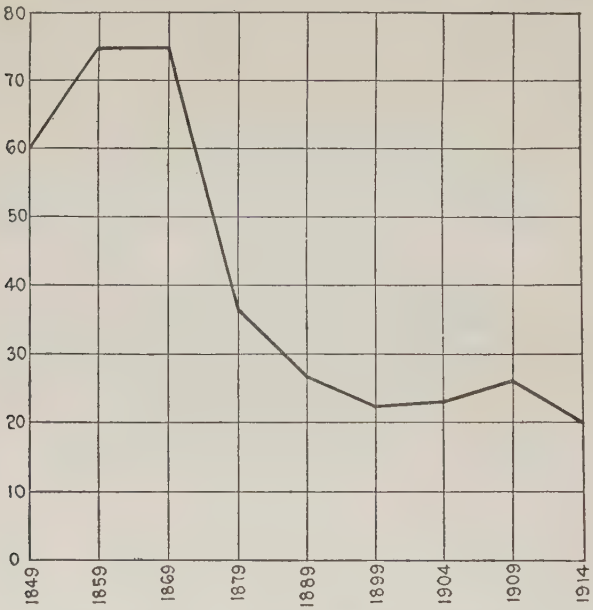


Fig. 29.—Chart Illustrating Tendency towards Combination in an Industry.

mills purchase practically the same raw materials, the finished products go to different markets. From the number of firms, taken over a period of years, can be seen the tendency to combination or dispersion. From the number of large firms and the number of small firms, can be gathered information relative to the average size of the prosperous company.

A study of such tendencies, coupled with a thorough understanding of its internal affairs, may warrant the surveyor's making such sweeping recommendations as that of selling the com-

pany, or of buying up some competitor, or even of actual dissolution.

There are undoubtedly cases where it would be wiser for a company to sell out to a competitor and liquidate entirely. A market survey which brought such a thing to pass might pay for itself a thousand fold. Of course, few companies find them-

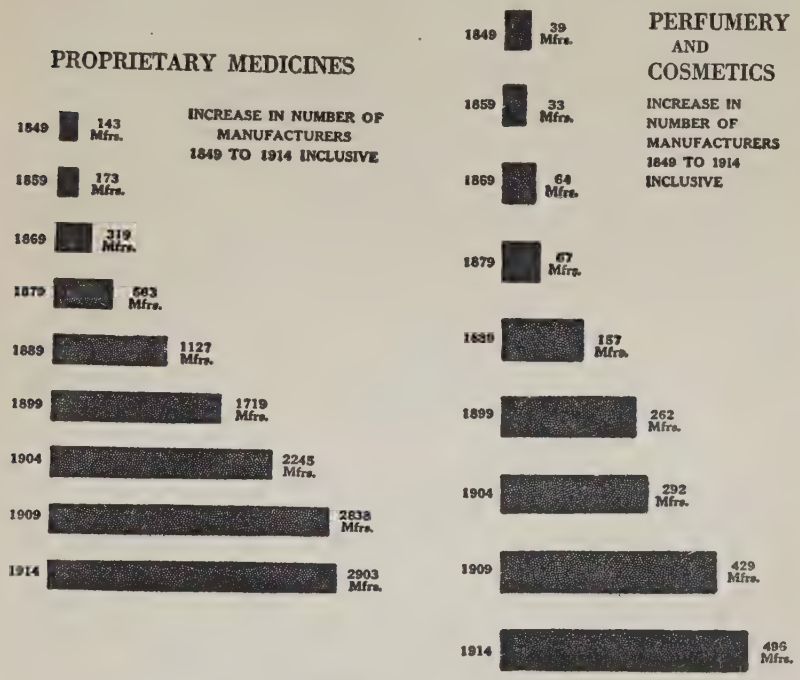


FIG. 30.—Charts showing Expansion in Cosmetics and Proprietary Medicine Industries. (J. H. Cross Advertising Agency.)

selves in a position where it is advisable for them to sell out. Frequently, however, those companies which make surveys are those companies which have been driven to it by some economic necessity.

Strictly speaking, such recommendations may not fall within the confines of a market survey, and they should not be advanced too rashly. Still, the man who is far-seeing enough to analyze potential markets has a vision which the executives cannot afford to ignore.

Allied Industries. One criticism which is often made against extended study of the industry in general is that the surveyor is not "keeping his feet on the ground," and that he is wandering far afield. This criticism is often a just one. Nevertheless, it is essential that he have at least a general idea of the great economic sea upon which floats the bark he is helping to pilot. He ought, accordingly, to give some attention to allied industries. Markets for different commodities, as he will find, have a relation to each other. For example, building activity, when restricted, results in a corresponding restriction in all the industries dependent upon building for their prosperity. Not only the market for lumber, bricks, cement, and other raw materials is affected, but also the hardware manufacturers, electrical equipment makers, etc. The influence does not stop here, but also has a bearing on the market for new furniture, stoves, and other household goods.

The degree of correlation existing between industries may help the surveyor to determine the relative independence in his industry of conditions in others. For example, if the market for furniture did not fall off proportionately with the market for furnaces, then building activity would not be so good an index for furniture as for furnaces.

The surveyor will find it impossible to extend his investigation to cover all industries which affect or are affected by his industry. It will be sufficient for him to take into consideration only the vital ones.

Domestic vs. Foreign Industries. A thorough understanding of a business often presupposes a knowledge of foreign conditions. There are some businesses which are confined mainly to certain countries, for climatic, geographical, or other reasons, such as the diamond mines of South Africa and the silk worm industry of Japan. If the surveyor had under investigation the making of jewelry or the weaving of silk, he would have to devote some time to the study of foreign sources of supply of his raw materials, the geographical source, the available supplies, the freight rates, insurance, the tariff, etc.

More important, perhaps, is a study of how the particular industry he is investigating is conducted abroad, and if his time and resources permit, he should find such researches illuminating. For instance, the fabrication of aluminum is quite different in

Europe from what it is in this country. In Europe, many fine gravity-poured castings are made from aluminum in metallic molds, some of which are very intricate, and the art has progressed further there than it has here. In fact, aluminum castings made in permanent molds are cheaper than sand castings in Europe. This is just the reverse of the state of affairs in this country, largely because the labor there is cheaper and more highly skilled. Europeans can make the dies at a price which would be prohibitive in this country.

It is ordinarily unsafe to transport a method of manufacture used in one place to another without most careful investigation. Nevertheless, it is quite likely for a foreign process to develop to a point where it can be taken over and applied to American requirements with great benefit. In this event, an understanding of how the industry is conducted in other countries may be of inestimable advantage.

Localization. The same factors which frequently make it important to study certain foreign industries are also present in a consideration of the company's location. Everyone has noticed the tendency of certain industries to become localized in particular places. This tendency is usually of long standing. The surveyor ought to consider the factors which make these localities particularly favorable for any given industry. We know that Pittsburgh is the steel center because of its proximity to the coal fields. We know that Paterson is the center of the silk industry because the waters of the Passaic river are more than ordinarily soft. We know that New Bedford became a cotton manufacturing center, because its nearness to the sea served to give it the humidity necessary for easy spinning of the cotton fibres. Perhaps the surveyor would have more difficulty in ascertaining why Nürnberg or Winchendon were toy towns, or Hartford the focus of the insurance industry, or Troy the leader in collar manufactures. Raw material, fuel, labor, transportation facilities, the market, or mere force of circumstance—any or all of these factors may play a part.

This general subject is closely allied to that discussed under "Combination and Integration." Conditions which tend to concentration of industries are constantly changing. The process is slow, but when the factors change which originally produced

concentration, then the industry must obey the economic laws affecting it. The abandoned mining cities of the West are drastic examples of what resulted when suddenly the reasons for concentration ceased to exist. The movement of the cotton mills towards the South is another example of a change of focus, as see Fig. 31. As shown there, nearness to source of supply is overcoming the inertia of a long-established industry, with modern equipment, trained labor, and excellent shipping facilities.

THE MOVEMENT OF THE COTTON INDUSTRY FROM NORTH TO SOUTH

Spindleage

	North	South
1900	13,171,377	4,367,688
1919	18,065,857	14,846,239
Increase	37%	240%

Cotton Consumption

	North	South
1900	1,909,498	1,523,168
1919	2,231,574	3,491,008
Increase	17%	129%

Looms

	North	South
1899	354,981	95,701
1914	421,641	251,113
Increase	19%	162%

Fig. 31.

A striking example of concentration is that of the moving picture industry, which of late years has become almost entirely confined to a single state, for the reason that this locality, on account of its topographical and atmospheric conditions, is pre-eminently suited to this activity. The reverse of this condition may be seen in England, where conditions are so utterly unfavorable as practically to preclude the success of this industry.

The surveyor ought to consider the location of the company he is studying with reference to the geographical grouping of the industry in general. Is his company situated advantageously or disadvantageously? Is it in a position to compete, or is its market more accessible from other positions? It is quite possible that breaking away from precedent and going to another place may be a wise expedient, as, for example, a number of Eastern automotive manufacturers discovered too late. A little commercial research might have saved these organizations from extinction.

Labor Conditions. Labor is one of the most important considerations, where the question of location is concerned. Ordinarily, the investigator will find it in large part a local and company problem, yet where the industry is concentrated in any one place or several places, or where it has created a city for itself, such as Gary, Illinois, there will be a general labor situation for industry and company alike.

Other germane questions are as follows: How many people are there in the industry? Has the number increased or decreased? How many women or children are there and what is the tendency in this respect? If the number of workers shows a decrease, it may mean that great strides have been made in perfecting the machinery of production.

What is the average wage of a worker in this industry? How does this wage compare with that paid by the company?

The industry in general is a subject which lends itself most easily to graphic portrayal, since the information is usually so detailed and profuse. The surveyor gets away from the particular and specific problems peculiar to the company, and comes into contact with the much broader and more vital problems which affect the industry. It prevents him from getting a one-sided impression, as he is so apt to do if he confines himself exclusively to the product and the company. This mental panorama

of the industry is of value not only to the surveyor but should be of greater interest to the company's officials, who in many cases are woefully ignorant of this matter. It is not the usual thing to find an executive who is thoroughly versed in the industry of which he is a part.

Conclusions. A study of the industry in general is important, not only on its own account, but also because of the psychological effect upon the surveyor himself. Even if the data he obtains are of no immediate applicable value, nevertheless the time consumed would be warranted on account of the breadth of view thus secured. In spite of the fact that he will get a lot of figures, notes, charts, etc., he should not forget there are some things which can never be charted. Inspiration is one of these.

There are many advantages in the study of the industry in general. One is that the data are almost always easily obtained. Second, they are usually in such shape as to lend themselves to graphic representation, so that general economic tendencies may be sketched in broad strokes. In parallelism with these tendencies, the past and prospective growth and activities of the company may be shown.

The main purpose in studying these trends is to give an index of future development. The surveyor may obtain grounds for short-range predictions from a study of the company or the product. But a study of the industry will assist in giving him material upon which to base long-range forecasts.

Indeed, a study of the industry will rarely result in any immediate profit. On the other hand, for far-sighted survey purposes, a thorough understanding should be had of the activities which lie beyond the company's threshold. Even in spite of his conviction that such research will be of no immediate advantage, the surveyor should devote ample time to it, for there is no telling where he may discover some little ray of light, indicating an opening which, when enlarged, becomes the door of opportunity.

CHAPTER XI

COMPETITION

Outline

What is the existing character of competition?

(*a*) Is there cut-throat competition?
(*b*) Is there a tendency towards coöperation?

What determines the degree of monopoly existing in the industry?

Is it caused by

(*a*) Raw materials?
(*b*) Process of manufacture?
(*c*) Distributing methods?
(*d*) Style?
(*e*) Advertising?
(*f*) Patent?

What is the basis of competition for the company? Is it

(*a*) Price?
  (1) How much luxury demand is present?
  (2) Do substitutes cause price changes?
  (3) How is price maintained and how prevalent is underselling?
  (4) Is price fixed by habit, by company dictum, or by trade demand?
  (5) What are the prices of competing products and how do they compare with the company's price?
(*b*) Size.
  (1) How does size affect the company's position among competitors?
(*c*) Location.
  (1) Is it advantageous or disadvantageous?
    (*a*) Is it situated among similar industries?
    (*b*) Is it by itself?
  (2) Should a retail store be on a corner?
  (3) Should a factory be in city or country? etc.
(*d*) Line of goods.
  (1) How many competitors are apparent and not real, due to
    (*a*) Different sales appeal.
    (*b*) Non-conflicting sales territories.
(*e*) The number of companies in the industry.

(*f*) Service.
  (1) What is the company's service problem?
    (*a*) Is it delivery?
    (*b*) Is it repair service?
    (*c*) Is it instruction?
(*g*) Labor.
  (1) Is it contented?
  (2) What is the rate of pay? etc.
(*h*) Transportation.
(*i*) Brand.
  (1) Is the company's brand satisfactory?
(*j*) Goodwill.
  (1) What is the value of the company's goodwill?
  (2) Is it decreasing or increasing, and what methods are used to improve it?
  (3) How does goodwill compare with competitor's goodwill?
(*k*) Personality of the executive.
  (1) How much of the company's success is due to the character and achievements of the executive?
(*l*) Patents.

Are there other aspects of competition?

(*a*) Is there competition between various sections of the country?
(*b*) Are there dissimilar products in existence which serve the same purpose?
(*c*) How is the company affected by chain store competition?
(*d*) Do mail order houses compete to any great extent?

What would be the cost of overcoming competition?

(*a*) Would it be worth while?
(*b*) Is there not some easier way?

What competition is there with foreign countries?

(*a*) With foreign goods imported from abroad to this country?
(*b*) In foreign countries with foreign goods?
(*c*) In foreign countries with other American goods?
(*d*) With foreign goods in this country?

Would combination with competitors be advantageous?

CHAPTER XI

COMPETITION

The value of any study of competition is dependent on the ability of the investigator to extract the information. The facts of most importance are naturally not those of common knowledge. It will try the surveyor's ingenuity to devise means of coming at this information in a legitimate way.

It is surprising to find the amount of ignorance existing in many companies about competitors. What they do know is accidental, and has come to them naturally rather than been sought for. Much of their information is hearsay, unsupported by evidence other than salesmen's gossip. The names of the larger competitors are known, something about what they make, perhaps a little concerning their merchandising methods. In the majority of instances no attempt has been made to collect these data for commercial use.

Theoretically, everything about a competitor should be of interest to the surveyor, his size, facilities for production, his product, his purchasing and sales methods, and the price charged to his customers. Actually, the surveyor will be limited to finding out the salient points about the principal competitors, unless it is intended to make a special point of this phase of the survey work.

The Sources of Information. If access could be had to all the information in the power of competitors to give, it would simplify the surveyor's task. As this obviously is out of the question, he must seek the information where he can get it. The following are suggestive of possible sources:

(1) *Catalogues and Samples.* A great many companies publish complete catalogues with price lists of their products, which are readily available for study. Through them it is possible to obtain general information about the various lines put out by competitors, the materials of construction, and to a considerable degree the method of manufacture. As the majority of catalogues are illus-

trated, the surveyor is enabled to get a clear conception of the appearance of the competing articles. This literature not infrequently describes their method of doing business, describes their plant, discusses the industry, or gives other valuable pointers.

A collection of samples of competitive products should be made whenever possible, and their main points described by the investigator in his report.

(2) *Customers.* It is possible, and in fact desirable, to interview some of the accessible customers of the most important competitors. The surveyor is, of course, apt to find that these same people are also customers of his own company. From them he should obtain information as to sales methods, merit of product, etc., and why, in general, the customers give them their trade.

(3) *Information Departments.* Many of the larger newspapers have departments which furnish their advertisers information as to the markets in their district, in relation to competitive products. The same is true of the larger advertising agencies, which also have services of this kind for the benefit of their clients. Trade associations are often in possession of valuable data on the subject which are available to members. Trade papers have the same service. Also the Chambers of Commerce in the various cities can often be of assistance.

(4) *The Competitor Himself.* Twenty years ago, a company probably would have refused point blank to divulge any information about itself to a competitor. Today, it may take the visitor through the plant. In certain cases it may be advisable for the surveyor to make application in person to the competitor. In that event it may be well to present one's self at the competitor's office without having previously announced an intention of calling. This makes it more difficult for him to refuse admittance. In interviews of this nature, the surveyor should show his willingness to impart information, and should open the conversation by stating his desire to render service. Information of marked value may sometimes be obtained from the competitors themselves, in return for a promise to give them the benefit of the surveyor's discoveries along certain lines.

The Character of Competition. The surveyor will find that the character of competition in different industries varies considerably. Generally speaking, "cut-throat competition" is going out of

vogue. Companies have begun to realize that their own ideas are not sufficient, however valuable they may be. They also realize that, if they are to obtain the benefit of their competitors' ideas, they must give their own in return.

This tendency among competitors to coöperate is indicated by the growth of the various trade associations, such as the National Automobile Chamber of Commerce, the National Canners' Association, the Hardware Dealers' Association, etc. In following out this trend, business is only imitating the example of the medical profession and the sciences, which have long realized the value of exchanging information. This growing feeling of friendliness among competitors is fostered by the various trade papers.

It is important for the surveyor to find out what *liaison* arrangements exist between his particular company and its competitors, as well as the prospect for extending these relations. It will not only prove of direct importance in the marketing problem, but it may prove to have a direct bearing on his own work. He may find that many of the other companies' records are open to him. Bankers and brokers, for instance, are usually willing to give each other information concerning various securities. In this way, a man is able to get information which would be exceedingly difficult and expensive for him to obtain by any other method.

Competition vs. Monopoly. A further step is to determine the *degree* of competition which prevails. This is one of those cases where it is the surveyor's task to find out what state of affairs exists in his particular industry, and to orient his company in that field. Some industries are highly competitive; a few are monopolistic, but most occupy varying degrees between these two extremes.

In ascertaining the degree to which monopoly exists in the company and in the industry, the surveyor may obtain some suggestions from the following classification:

(1) *Raw Materials.* The sources of supply from which competing companies get their raw materials allow the surveyor to draw some inferences as to the monopolistic element present. Large monopolies, such as the Aluminum Company of America, are likely to control sources of supply.

(2) *Process of Manufacture.* Operating efficiency will often enable one company to secure a virtual monopoly in its field.

This may have been obtained through the energy and ability of the executives or may have been acquired through development while under patent protection. The Ford automobile has a virtual monopoly on the low-priced car, while the Dennison Mfg. Co. takes the lead in the tag and sticker field by means of its specially developed automatic machinery.

(3) *Distributing Methods.* If a company has an unusually well-developed system of distribution, this is one of the surest ways of holding the field against competitors. The United Cigar Stores are an example of a selling organization for cigars and tobacco which has tended to monopolize the retail sale of tobacco in many districts.

(4) *Style.* To a great extent the style of the article may determine the degree of monopoly. In the automobile field, for instance, the Pierce-Arrow car has aimed to stand preëminent in the high-price trade.

(5) *Advertising.* Advertising is a great factor in competition and the articles are numberless the hold of which on the public has largely been obtained through this source. The media through which competitors advertise are important in this connection.

(6) *Patents.* A patent forms, in some cases, a true monopoly. It is protected by legislative enactment against competition. This is true of the Schrader valve for automobile tires. It is also true of many patented processes which virtually give the manufacturing company or companies a monopoly, for instance, the Aluminum Castings Company, which controls in this country the Cothias patents for casting aluminum in open metal molds.

There are, of course, other influences making for monopoly. The copyright law is one. Then there are special government dispensations to some companies, such as franchises under which railroad companies operate, bank note concerns which manufacture currency and stamps, etc.

Under each of these headings the surveyor should consider wherein its principle affects his company's problem, whether any attempt in the direction of greater monopoly is desirable, how expensive such control would be, etc.

The Bases of Competition. There are certain fundamental factors of competition common to the manufacturer, the middleman and the retailer alike, although appearing under somewhat

different aspects. The surveyor should treat each of these problems. Certain ones recur in every industry; some are peculiar to a few industries. In competition, as in other fields, no two companies have exactly the same problem. By analyzing the differences, the surveyor may group competitors into those which come closest and those which are scarcely competitors at all.

The principal bases of competition are as follows:

(1) *Price.* What has price to do with selling this article? In what way does it give an advantage over competitors by being higher or lower? Price is so inextricably tangled with every marketing problem, and in such individual ways, that nothing more than suggestions can be given here as to the surveyor's method of attack. As a rule, the more luxury demand present, the less importance is attached to the price factor, since style and not price is the deteminant there. A company having a monopoly of the field can charge its own price, but, on the other hand, if this price is considered too high by the purchasers, the market will be strictly limited, as in the case of certain household refrigerating systems. Or, if the article is badly needed, there will be substitutes. Price, as everyone knows, has a great deal to do with selling the article, whether it is fixed by competition or whether determined by the company itself.

Manufacturer, jobber, and dealer have to face the problems of price maintenance and of underselling. To test out this tendency, the surveyor should attempt to ascertain the exact prices charged by competitors to jobbers, retailers, and consumers, and the profits made by each concern, or group of concerns in the chain of distribution. Ordinarily, manufacturers are in favor of a fixed price maintained by reason of patent rights, by contract with dealer for consideration, or simply through a "gentlemen's agreement." There are always dealers who wish to cut prices of standard articles to attract trade, and those who wish to conduct closing-out and end-of-the-season sales. There are, in addition, dealers who make a practice of cutting prices on everything possible, claiming that their particular economies allow them to follow this practice.

In some lines, price is fairly well fixed by habit or custom. Thus, chewing gum sells for five cents a package and peanuts for five cents a bag.

It has been pointed out that a fixed price lays the manufacturer open to competition. That is, competitors can figure out their own costs in relation to this price and act accordingly. Furthermore, the manufacturer has constantly to be thinking of improving the product and giving the customer more for his money.

"In the wholesale markets," as John Stuart Mill says, "it is true as a general proposition that there are not two prices at one time for the same thing." The surveyor will notice the truth of this statement, that competition fixes wholesale prices much more rigidly than retail prices, which in comparison are slow to feel the effect of competition.

(2) *Size.* The size of the concern is an important element in competition. Generally speaking, the larger manufacturers, jobbers, and retailers have certain advantages over their smaller competitors, particularly in staple lines. The problem of distribution may be simpler for the larger companies, as may be also production efficiency.

In studying competitors, the surveyor will perceive that the problems of his company doubtless will be most akin to those of companies of a similar size. Sales and manufacturing problems are very likely to be similar, distribution difficulties alike, etc. Smaller companies will be busied with local problems; larger companies will be able to effect economies impossible for them.

Size for the retailer is almost always an advantage, as long as the local market is large enough to take care of the overhead. It enables him to carry in stock an extensive line of goods from a wide variety of sources; it allows him to do business in an attractive manner; turnover of goods is quicker as volume of business increases; he can advertise on a large scale, etc.

(3) *Location.* Where is the company situated in comparison with its competitors? Is its location advantageous or disadvantageous? It is hard for a company to compete if it is not well situated, both in respect to its market, and in respect to its raw materials. As has been pointed out, industries of similar nature tend to become concentrated in certain cities. Lynn is a shoe center, Akron a rubber center, Providence a cheap-jewelry center, etc. Buyers of these articles naturally go where there are the most sellers and thus the isolated manufacturer is at a disadvantage.

The problem of the dealer and retailer in regard to location is somewhat different. Location is all important. It is in many ways an advantage for large department stores to be near each other, partly because it makes it easier for women to shop in them. But it would be a serious disadvantage to have three drug stores on the same block. In most cases, the surveyor will find that the location depends for its advantage on the clientele it expects to reach. For instance, automobile accessory jobbers are apt to be grouped together for convenience of the buyers, and the same is true of leather, cotton, and wool wholesalers.

The habit of grouping crafts and industries in one locality descends from the middle ages when the guilds congregated together. Many retailers now find it expedient to locate away from their competitors. If the surveyor is confronted with such a question he should ask himself if this is to the best advantage of the retailer. Should the store be located on the main thoroughfare or on a side street where rents and expenses are lower? Should it be on the ground floor, or will the second, third, or even twentieth do equally as well? Should it be on a corner, as the United Cigar Stores are apt to be? All these questions are a part of commercial research, and have a bearing upon market analysis.

(4) *Line of Goods.* Competitors often differ widely in the lines of goods offered for sale. The surveyor will find it valuable to ascertain how many and what lines the chief competitors carry, and, if possible, which are the most successful sellers.

Manufacturers may be apparent competitors, yet actually not so at all. For example, the territorial scope of their market may be absolutely separate. Many producers on the Pacific Coast are not in competition with those on the Atlantic Coast, because the freight rates preclude the overlapping of their territories. Again, the appeal may be to different classes of purchasers. The maker of cotton hosiery conflicts but little with the maker of silk hosiery, because the class of purchaser is different.

For the retailer, it is usually desirable to stock a fairly complete line of goods. Purchasers do not like to go to a store and find that it does not carry what they wish. The surveyor should endeavor to get a line on the completeness of the stock, and also the rate of turnover. He should here as elsewhere, however, be on the lookout for exceptions to the rule. Some retailers have

made successes by carrying only a single line. Restaurants have proved profitable which served nothing but doughnuts and coffee.

(5) *Number.* The number of companies which an industry will comfortably support varies from one to many thousand. The actual number of manufacturers, for instance, does not tell anything about the status of competition in that industry. The surveyor must look further than this. For instance, the business may be highly competitive and yet have very few companies in the field. In the phonograph industry, there are not more than a half dozen dominant companies, two of which have a large share of the trade.

(6) *Service.* Few articles, the surveyor will find, are sold exclusively on merit or style. The element of service usually enters. Service may play a very important part in a company's hold of the market. In merchandising tractors the distributor must furnish adequate repair service. At the plowing period, when every minute counts, if a breakdown occurs, the judgment of the whole community in regard to the tractor may depend on the speed with which repairs are effected. The automobile dealer is better equipped for this service than the implement dealer, and this advantage alone may be sufficient to give him a preferential standing.

The cost service varies with the product and the use for which the product is intended. This is graphically shown in Fig. 32, which indicates the expense of cartage in various lines of business. The service may be a delivery system, as in the case of many retailers; it may lie in prompt attention to complaints; in readiness to listen to and adopt suggestions; in helping dealers merchandise their products, etc. The surveyor should notice what services competitors offer, and should watch for signs of appreciation of these services among the competitors' customers.

(7) *Labor.* The labor problem is a very definite one in competition. Contented labor is a great asset. Strikes are costly and result in ill-feeling on both sides. The surveyor should observe the class of labor employed by the company's competitors, and compare the rates of pay with those of his client. Such studies of labor may reveal many interesting sidelights. It may appear that city labor is inferior to country labor, for example. In one case, where an electrical manufacturer had a plant in the

city and another in the country doing the same line of work, the country plant was run much more efficiently and on a cheaper basis than the one in the city, mainly because the workmen were more efficient.

(8) *Transportation.* Transportation exercises a very real limiting influence on business. It may make distance a factor of little importance, as the installation of refrigerator express lines did for the fruit trade of Florida and California, or it may be an efficient barrier to expansion where the article is bulky.

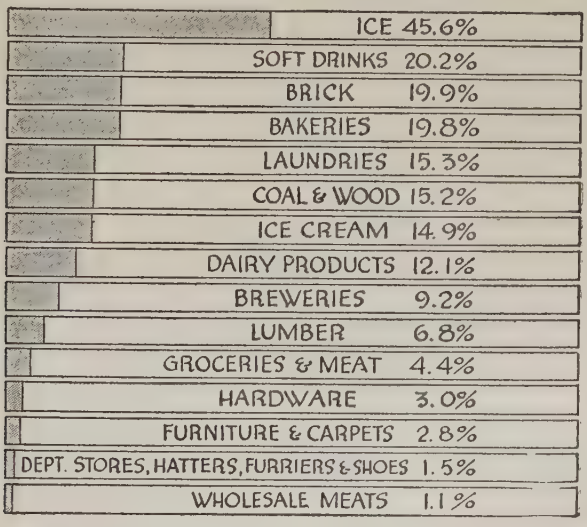


FIG. 32.—Chart showing Proportion of Delivery Costs to Gross Sales in Various Lines. ("Chicago Tribune.")

In this connection, the surveyor may find it valuable to investigate the means of transportation which competitors use. For instance, competitors may have found that the truck offered a solution for some of their problems, or they might ship to an assembling plant at some distance before setting up the product and marketing it. In Europe aerial transportation is already becoming a competitive factor. The surveyor must not forget that some seemingly insignificant move on the part of a competitor may serve to establish a trend which will one day become controlling.

(9) *Brand.* In many industries it is customary to sell products under brand. The surveyor should aim to discover of what value this brand is in competition and, if possible, to analyze the various competing brands and see if there is anything intrinsically wrong with the one used by his company.

In *Printers' Ink* there is an interesting discussion of the possibility of one sales organization selling two directly competing articles controlled by the same company. Examples are given of a typewriter company which purchased several competing makes and attempted to market them all through the same sales force. The consequence was that all but the original one disappeared. The same experience was undergone by a paint company, a watch company, and the maker of an office device, each of which attempted the feat of having the same salesmen sell two articles. In each case it failed. The writer points to the General Motors Corporations, with separate offices and salesmen for their various cars, as a successful example of a company which adopted the opposite policy of retaining the personnel and sales force of the purchased company intact. Eastman Kodak and Standard Oil are other examples of the same policy. This would seem to point to the conclusion that one sales force cannot sell successfully two competing brands. Either the two should be combined, or sold separately with separate organizations. Such examples may prove illuminating to the research man; but he will be well advised to judge his own case on its merits rather than by analogy.

The brand is a double-edged weapon, for while it protects the manufacturer in many ways, it also protects the public, who, if not caring for a particular article, can easily avoid purchasing it again.

Another point for the surveyor to consider is the ease with which the brand name may be pronounced. It has been found to be a psychological fact that uncertainty as to pronunciation of an article will often deter a purchaser from asking for a particular brand. This explains the change in spelling of some products, such as "Jonteel" for the French "Gentil," and "Sempray Jovenay" for the Italian "Sempre Giovine." In other cases, such as "Cliquot Club" and "Jaeger," the names have been respelled phonetically in small letters below the actual name.

The surveyor may encounter a situation where a company is manufacturing its products under separate trade names. When a large line of products is put out, it is manifestly impossible to give each a great amount of publicity, and the multiplicity of names is inclined to breed confusion. In many cases, it may prove excellent policy to choose a family name for the company's products. By advertising this one name all the products of the company receive publicity.

(10) *Goodwill.* The surveyor can best measure the value of the brand or trade mark by the goodwill. Goodwill may be an almost priceless asset, as that for "Ivory" soap. Ill will may be as much a detriment to sales as the motto "Made in Germany" was during the war. Goodwill is likely to increase with age, and, if a company with a long record does not have a considerable amount of it, there must be something radically wrong.

In some cases goodwill may prove superior even to price as a drawing factor, though not in all cases. A certain cleanser, though nationally known and distributed, has suffered serious loss through competition of other cleansers selling at a lower price. The name of the product has much to do with goodwill since this is the means of identification in the eyes of customers. It is a dangerous policy to attempt changing the name of a well-known product.

The surveyor will find that goodwill is a most intangible factor and ever changing. Its value lies wholly in the merit of the product in the eye of the consumer. It may have been built up laboriously by years of patient cultivation and fair treatment, or it may be a mushroom growth of advertising. Most goodwill is a combination of both. However it is created, it is there, and the surveyor must deal with it as one of the very potent factors of competition.

(11) *Personality of the Executive.* No matter whether large or small, a company must have a head, and, on the ability of that head to conduct its affairs, depends in large degree the standing of the company among competitors. Henry Ford made the Ford Company, John M. Patterson made the National Cash Register Company, and other examples will occur to the surveyor. Whatever methods were used, it was the personality of the man in charge which was largely responsible. It is important for the

surveyor to study the personnel of competitors with this in mind.

(12) *Patents.* Some companies, by virtue of their patent rights, attain priority in the field. This topic has already been treated.

Other Aspects. So far, the direct factors of competition have been discussed. But what of the indirect factors of competition? There are usually various semi-competitive considerations which will crop up in almost every survey, and for which the investigator must be on the alert. An example of this indirect competition is the railroad line which operates in rivalry with steamship lines. There is navigation on rivers and canals, and there are motor trucks, as well as other railroads. More recently, we have the very potent competition of the automobile with the street car.

Outside of the field of public utilities, the surveyor will notice examples of indirect competition in daily life. He will observe the automatic gas lighter in competition with the match, electricity ousting gas for illuminating purposes, etc. This topic is closely related to that previously examined, on the superseding of a product.

On the other hand, there may be no competition where it appears to be rife. A survey revealed that, comparatively speaking, no women use soap powder for both washing and scouring, but that all women used a scouring powder, that is, a cleanser.

The engineer may not find anything of this sort in the problem he is investigating but at least he should look carefully into the possibilities. The indirect factors of competition are likely to prove elusive, but their influence is none the less important.

Chain Stores and Mail Order Houses. A semi-direct factor of competition in many lines of business is the chain store and the mail-order house. It is likely to have its effect on manufacturer, middleman, and dealer alike. For the manufacturer it may offer a very convenient method of marketing part of his production, although he runs the risk of incurring the enmity of " legitimate " distributors.

The chain store is usually a price cutter. It can afford to do this on account of quantity purchases, quick turnover, and a central warehouse available for quick supplies. The stocks

in many chain stores are turned over more than once a month. They are also usually of the " cash and carry " variety, thus eliminating the cost of delivery service, and cutting off a certain percentage of the price. Although chain stores may push their own brands, yet as a general rule they carry as wide or a wider line of advertised goods than other stores.

The mail-order house illustrates another specialized type of competition. There are two very large houses in this country doing an exclusive mail-order business, and many smaller ones. In addition to this, many ordinary companies have mail-order departments. The surveyor should go into the possibility of mail-order business for his product, while studying the market. It affords a convenient, cheap, and rapid method of canvassing territory, particularly rural communities.

Mail-order houses sell practically everything and the purchaser has the opportunity to do all his ordering from one house through one catalogue. The surveyor should ascertain whether his own company should establish a mail-order department, and, if so, what the reaction of the distributors would be. Middlemen naturally resent any incursion on their territory, and such possibilities of friction should be explored before any final recommendations are proposed.

If the surveyor finds that chain store or mail-order competition is a large factor in the company's problem, he must take cognizance of it. Although chain stores and mail-order houses are often problems of distribution, still they are fundamentally problems of competition. The surveyor must present the existing facts to the company's executives and allow them to make any necessary decision.

Cost of Overcoming Competition. The methods of coping with competition depend, of course, entirely on the nature of the competition, whether it is of price, location, quality, advertising, goodwill, or other kind. It is part of the surveyor's task to form some sort of estimate as to the cost of overcoming competition and the desirability of entering markets already occupied by competitors. These competitors may be in such a preferential position that it would be most unwise to attempt fighting them. It is a question of whether it would be an economic thing for the company to do under the circumstances.

When a company enters an already occupied field, it does so ordinarily with the knowledge that for some time it will be a losing proposition. The market survey should determine in advance just what the points of attack should be for the company in overcoming the competition and the relative strength in the field of the various opponents. This is usually done through a survey of the dealers, that is, of the people who already handle the competitors' products. It also means an advertising campaign, the basis for which should be largely outlined in the surveyor's report. One of the very practical results of the survey work is the analysis of sales resistance.

Competition with Other Countries. The surveyor must study foreign competition from two aspects, first, the competition of foreign goods with goods in this country, and secondly, the competition of our goods with foreign goods in other countries. It may be that the product he is studying is directly threatened by some cheaper foreign-made article. This has often happened in previous years when cheap labor and materials abroad helped capture the American market. The safety match is a good illustration. Prior to the war there was no manufacture of safety matches in this country. The Scandinavian countries and Japan controlled the field. During the war domestic competition was possible because the transportation of safety matches was exceedingly difficult. When the war was over, our domestic trade in safety matches was again threatened by the cheaper product.

Certain countries tend to monopolize certain industries throughout the world. The English through Lever Brothers dominate the soap market, and through Lipton's tea interests have a large share in the tea market. Switzerland has a monopoly in a certain type of watch; the Dutch in the tulip and bulb market, Germany in the dye and toy industry, while we command the automobile field.

The surveyor must take note of foreign competition if only as a protection. He should observe what other companies are doing in the foreign field, both aggressively and defensively. He should look into the tariff laws and other legislation pertaining to the subject.

General Conclusions. In this difficult and important division

of market survey work, the investigator will have need for all his powers of judgment. It is undeniably hard to estimate competition at its proper value. He should be able, however, without too much difficulty to determine the basis of competition on which his company operates. In other words, he should be able to ascertain the exact reasons why the company is better or worse off than its competitors. He should also get a fairly comprehensive idea of the strength of competition with which the company must contend, and how great an effort would be necessary to overcome this. Most important of all, the surveyor may be called upon to recommend some radical change in competitive methods, as a result of this survey.

Whatever conclusions are reached, the surveyor must remember that any discussion of competitors involves a tactful handling of the subject. The company's executives frequently have an animosity towards their opponents, which may blind them to many important advantages which might have been derived from an adoption of some of their policies. It will be for the surveyor to present his deductions from a study of competition in such a way that the reasons for their adoption will be perfectly plain.

CHAPTER XII

THE COMPANY'S CUSTOMERS

Outline

Why do present customers buy from the company?

- (*a*) Habit or tradition.
  - (1) Is the line of business one in which the tendency to switch is marked?
- (*b*) Personal feeling.
  - (1) How much of a factor is the salesman in the success of the product?
- (*c*) Quicker deliveries.
  - (1) Has the company a reputation for speedy deliveries?
- (*d*) Location.
  - (1) How much sales resistance is due to location?
- (*e*) Better price.
  - (1) How great a factor is price in selling to customers?
- (*f*) Better terms.
- (*g*) Quality.
  - (1) Is the company's reputation founded on the quality of its goods?
- (*h*) Advertising.
  - (1) Do customers have to buy company's product because of its advertising?

What is the attitude of customers towards sales engineering?

- (*a*) Would customers appreciate such a service?
- (*b*) Should engineer also be a salesman?

How may customers be classified?

- (*a*) Age.
- (*b*) Volume of business.
- (*c*) Location.
- (*d*) Foreign and domestic.
- (*e*) Quality.
- (*f*) Transient.

Why have former customers ceased buying from the company?

- (*a*) Were they disgruntled at service?
- (*b*) Have they found better product?

(*c*) Have they been approached by better sales methods?
(*d*) Have they been neglected by company's salesmen?

Is there an opportunity of recovering former customers?
(*a*) Has the cause for dissatisfaction been removed?
(1) Has the product been improved?
(2) Have merchandising methods been changed?

CHAPTER XII

THE COMPANY'S CUSTOMERS

After studying the product, the company, the industry, and competition, the next logical study in the course of procedure is the customers of the company. Who are they, how may they be classified, why do they buy, why have they ceased buying? The surveyor must be prepared to answer any of these questions. Customers are not necessarily ultimate consumers. In the case of the manufacturer, they are probably jobbers or dealers, who, in turn, have other customers. Whoever he may be, the customer is ordinarily in a position to give his trade to that manufacturer or retailer who will show him most in return for his money, whether in value, service, delivery, or other inducement.

We have, it is true, certain periods in commercial activity, termed sellers' markets, when, owing to economic conditions which create shortage of supply, many buyers have to take what they can get. The element of choice is markedly reduced, though still present to some degree. This turn of affairs has sometimes led companies, placed thus in a preferential position, to abuse their opportunity and raise prices unduly. The surveyor must regard the attitude of the customer as of the greatest importance to the company. Aside from all data on the product, its excellence, its wearing qualities, and its price, the feeling of the customer in regard to that product, and in regard to the company which markets and manufactures it, largely determines its success.

The Customer as a Source of Information. The customer, be he dealer or consumer, will have comments to make on the company, the product, the methods of merchandising, etc. These comments may be favorable or unfavorable but, for the surveyor's purpose, they both serve the same end, that of eliciting criticism. Several instances are given by C. P. Russell in *Printers' Ink* where the comments of customers served to solve the com-

pany's problem. One instance was that of a manufacturer of electric irons, whose product was technically satisfactory and the price considered fair, yet it did not sell. On application to consumers, the criticism was made that the iron was rough looking. The company put some nickel on the iron, polished it up, and there was no further trouble. Another example was that of a luggage company which had for customers only 800 out of a possible 1800 dealers in the country. Investigation showed that small town dealers preferred to buy complete lines of luggage from one firm. The company accordingly changed its manufacturing policy and increased its percentage of distribution from a very small figure to 70 per cent.

The field survey is aimed primarily at the customer on the theory that he will know more about the practical end of merchandising, that is, be in a position to interpret the wants of the public before their sentiments get to the company.

One of the great advantages of consulting the company's own customers is that they are ordinarily very willing to express themselves freely. In fact, they are more likely to say precisely what they think than the officials of the company itself. Furthermore, it is easy to get an entrée, since customers feel that the surveyor is one to whom they may make, to their own advantage, suggestions and complaints.

As long as human nature remains as it is, customers will have complaints to make. Some of these may not be worthy of attention, but the majority will be of great value to the surveyor. The surprising thing about many such complaints is that many of them have never before been brought back to the company. The contact has been through the sales department of the one company via the purchasing department of the other, and it frequently happens that each of these departments is somewhat isolated from the rest of its organization. Salesmen sometimes have reasons of their own for not reporting the precise status of affairs, while purchasing agents are too often merely writers of orders, who know little about the actual performance of the merchandise they are buying. It is, therefore, important to interview other officials in the customer company beside those of the purchasing department.

If the commodity in question is one which enters into the

purchaser's product, such, for instance, as a carburetor sold to an automobile manufacturer, it is just as necessary to get the viewpoint of the customer's sales department as of his purchasing department, since it is quite likely to be the sales department which specifies or rejects the component in question. As far as the grade and quality of the commodity is concerned, reference should be had to the department which controls incoming inspection. As to its general design, the opinion of the engineering department should be consulted. Even the ideas of the customer's credit man are not to be ignored. It is also well to interview some of the customers of competitors and find out the motives which induce them to buy where they do. Such information throws further light on the problem of customers.

When a customer carries competing lines, the surveyor should endeavor to find out how the competitor's products are selling, what their good points are, what the trouble with them is, etc.

Many companies have in their files testimonials which may prove of value to the surveyor. As a rule, however, the things which are wrong will be of most help rather than the things which are perfectly satisfactory. The real value of testimonials will come in comparing them with current complaints to see if the same condition of satisfaction is still existent.

Motives for Purchase. It is important for the surveyor to analyze motives for buying, because the company wants the customer to continue to buy and because it wants to find other people who wish to buy. If the reasons for purchase are scrutinized, the surveyor will find there are some which prompt the customer to buy and others which tend to make him go elsewhere. These motives should be classified.

A consideration of the reasons why a customer, able to buy and in full knowledge of the existence and uses of the product, does not purchase, is almost tantamount to a consideration of the faults he has to find. The ideas of one critical or potential customer on this subject are not enough. It is necessary to try all customers or at least a representative selection of them. Probably there will be a considerable amount of unanimity. At least, there will be sufficient agreement to determine the principal faults.

This investigation of the reasons for fault finding is of very

direct bearing on the company and may lead to changes in policy. Of how long standing are these complaints? Is it within the power of the company to rectify them? A market survey which did nothing but interview customers might pay for itself readily, not only in the information secured, but in the goodwill acquired. The customer likes to feel that the company takes an interest in him. There is a psychological reaction to the company's benefit. The surveyor meets customers on an entirely different footing from the salesman. The surveyor does not want the customer to purchase anything and has no order book concealed in his pocket.

Investigatory work among customers is likely to bring out many helpful suggestions, such as new uses or new markets for new products. Live customers have constructive ideas. They have their fingers on the public pulse and are ready to record it. The reason they do not express themselves more often is that no one ever asks them to. New customers are likely to have more advanced ideas; old customers will give more accurate estimates.

The consensus of the motives for buying will greatly help the surveyor to solve the problem of what the company's chief sales argument should be. The surveyor must, however, remember that many faults will be of such a nature that the company will not be able to rectify them.

Analysis of motives for purchase may be eye-opening to some companies. It allows them to visualize accurately just what their hold is on the purchasing public, and if the tenure of that hold is secure. Following are some of the principal motives for purchase:

(1) *Habit or Tradition.* Many customers buy a certain article or do their purchasing at a certain place because it has become a habit and a custom. They have done so in the past and will probably continue to do so unless they become dissatisfied or are tempted away by a superior appeal.

In some lines of business, customers are very faithful, while in others there is a great tendency to "switch." Few people, for instance, wish to eat the same cereal year in and year out, since sameness in any food palls. In the tobacco field, customers for cigarettes and smoking tobacco are fairly stable. In the cigar line, dealers estimate, according to the Milwaukee *Journal*, that the percentage of smokers who shift brands is about 20 per cent.

The reason most often advanced is that no matter how much a man likes a cigar, he will eventually not only tire of the taste, but he will be tempted to try new brands because he becomes interested in advertisements of new cigars.

The following is a tabulation of reasons given both for shifting brands and also for clinging to one brand:

Reasons for not switching:	
Satisfied	16
Used to taste	7
Did switch until found present	2
Don't like to mix	1
Like shape and taste	1
Reasons for switching:	
Convinced by publicity	16
Try to find better quality at same price	9
Can't enjoy same taste long	6
Quality deteriorates	4
Like variety	4
Shortage	3

This matter of habit and custom is one which the surveyor should not neglect. It is the decisive factor in the success of many small businesses which depend for their trade on this very satisfaction of their regular customers with their product. This is responsible for the success of many local enterprises which, although they have never made any attempt at broad distribution, yet are highly prosperous.

An instance has recently been observed where an annual income of $50,000 was secured on the steady patronage of only 2,000 customers. The product was a specialty cigarette. Their average consumer smoked one pack a day, 365 a year. Multiplying this by 2,000 made over 700,000 packs of annual sales. At 30 cents a pack there was a gross business of over $200,000.

(2) *Personal Feeling.* Friends are one index of a salesman's success. He cultivates the acquaintance of the purchasing agent, or whoever may do the buying, and tries to make a friend of him. The salesman's chief asset is his personality, and he uses this personality to tie customers to him rather than to the representative of some rival firm. He is apt to look on these business friends as his exclusive possession, and if he moves to another company, he often tries to take them with him, and ordinarily does succeed

in removing many of them from the company's books. Thus a certain class of buyer is tied to the company only through the loyalty of the salemen.

The influence of the salesman varies according to the commodity which he is selling. In the case of nationally advertised goods, the personality of the salesman plays a lesser part. But where the basis of competition rests on other grounds, the character of the sales force and its ability to create personal goodwill for itself and for the company is very important. Sellers of securities for investment houses often obtain the confidence and respect of their customers. Should they become disgruntled with the house whose offerings they are disposing of, they can frequently take a large proportion of their customers with them. This helps to explain the large salaries and munificent commissions paid to salesmen as a means of holding their loyalty.

When the surveyor finds a large percentage of the buying motive attributable to the personality of the salesman, he has found one point which will prove of much interest in his report.

(3) *Quicker Deliveries.* Quick deliveries and prompt attention to orders appeal greatly to a customer. A reputation for this may be the means of obtaining orders from firms which had hitherto purchased elsewhere but now need delivery promptly and are hence placing their order where they think there is most likelihood of its being filled. This is the more apt to happen as many companies dislike to purchase ahead any further than necessary and expedient.

(4) *Location.* In the city in which it is located, a company is known. The workmen in its employ spread its name. Its products acquire a local reputation. Customers in the city can be supplied with fresh goods almost immediately. There is a feeling that home industries should be patronized. Thus, many people in that city buy because they know the product, can get it at once and fresh, and are helping their own town or city.

On the other hand, when the company is at a distance, it has to convince customers in that city why it is better for them to buy out-of-town goods rather than patronize a local industry. This question of local demand is a species of sales resistance with which every company doing business in other cities must cope. National advertising does away with local demand to a certain

extent. Branch warehouses and local offices do away with other disadvantages. The opinions of customers on these points will be valuable and perhaps instructive. From their own experiences they will be able to offer suggestions as to methods of overcoming this impediment.

(5) *Better Price.* Many customers buy goods on price, regardless of quality. Some other people buy goods for the quality, regardless of price. The majority, of course, buy goods because of the quality obtainable for the price they can afford to pay. If a company can undersell its competitors on goods of approximately the same quality, it should have no difficulty in securing customers. But the surveyor will find that the price will not vary much for the same quality of goods. In some industries the price has been so standardized that, in normal times, quotations of rival companies will vary by but a fraction of a cent.

When the Chicago *Tribune* made an investigation of the cleanser market in Chicago, it found that the brand selling highest retailed for 5 cents, while the nationally advertised brand, selling for 10 cents, and admittedly better in quality, sold far beneath. All dealers agreed that it was easier to sell a five-cent product and this was the main reason for the remarkable sale of the lower priced article in which volume of sales was exceptionally high, dealers disposing of from 3 to 100 cans of the five cent cleanser to one of the other. This held true even in high-grade neighborhoods where quality is usually the guiding motive for purchase.

In studying the price motive for purchase, the surveyor should remember that after all the price of an article is of interest to everyone, and that, if it is not right, the organization is not functioning properly.

(6) *Better Terms.* Some people buy from a company because of better terms. What do the customers think of the company's system of credits? The problem of terms is a difficult one. Although the majority of the customers desiring easy terms are bona fide customers, able and willing to pay, a certain percentage will never be able to settle up their debts. This causes many companies which have had unfortunate experiences to be very tight with credits.

(7) *Quality.* Quality is often found to be the motive for purchase, and more especially the uniformity of the quality. That is, the customer feels that he may rely upon the company's products as always being the same.

Ninety per cent. of grocers interviewed in a coffee investigation said they would keep the quality of the coffee no matter what happened. They considered that the public wanted the best coffee regardless of times or existing conditions. Some grocers had special high-grade coffee prepared for them, and in the majority of cases they found this to be their best seller. Customers would not buy coffee with chicory ground in it, and some people bought bulk coffee that they might be sure it was free from adulterants.

Quality is definitely a drawing card of great value. The surveyor may be surprised, however, to find how much a few off-grade shipments will prejudice that company in the eyes of the customer, even although the previous hundred shipments had been all up to grade.

(8) *Advertising.* Many companies have attained such reputation through their advertising, that the public naturally buy their products. The dealer is compelled to carry their line because, if he did not, he would lose trade. Such articles are trade-marked and the names are so familiar as to be known the country over. For instance, almost every grocer carries Ivory Soap and Quaker Oats, because people ask for these articles. The hardware dealer carries Disston and Simonds saws, and the same tendency holds true in nearly every industry. There are certain nationally distributed articles which must be carried in stock. The customer ordinarily thinks in terms of the advertised article. If a company does not occupy this preferential position of publicity, and has to compete with another company that does, it is at a disadvantage. Its selling campaign must be worked out with full knowledge of the difficulties. By asking the customer what particular brands are most popular, the surveyor can get some idea of the sales resistance to be overcome.

The analysis of these various motives for purchase allows the surveyor to comprehend exactly the reasons for the company's success or failure with customers. Has the company stressed the right motive or has it spent its efforts trying to sell

goods for reasons which carry no emphasis. The surveyor must make the company realize that it cannot hope to reach its maximum efficiency in selling until it understands these buying motives.

Sales Engineering. Nearly every customer appreciates service in any form. Many of the points previously enumerated have been actual services. The work of the advertising agency is largely based on service, not in the sense that the automobile repair shop gives service, but in doing things which the customers will appreciate.

There has been a great deal of attention paid of late years to the problem of sales engineering, a form of service which some companies have installed and others are seriously considering. The sales engineer's first function is to ascertain the technical demands of the customer. He interviews the chief engineer instead of the purchasing agent. He may be a salesman and he may not. He offers his help in solving any problems that may have arisen in connection with the use of the company's product.

Although sales engineering, strictly speaking, is confined to those businesses in which a technical element enters, it is being extended to cover other cases. It is quite possible for a company to send out men trained in the analysis of customer and dealer problems who may very possibly be of assistance to the customer in merchandising his product. The day has passed when companies merely unload their products on the dealers. They now assist in the further marketing of their product, not only by national advertising but by more personal dealer helps. The automobile industry is entitled to much credit for developing this idea.

The benefits of the sales engineer are not only actual but psychological. Once a man has unburdened himself of his complaints he speedily forgets about them, whereas, if he dams them up, he may carry them about in his mind for years. Of course, the sales engineer may incur the enmity of the purchasing department, which may consider that he has gone over its head. His work necessitates tact.

In studying the customers, the surveyor might find it advisable to try out the feeling about sales engineering in the business. What do they think would be the benefit? Would they themselves

appreciate it? As a form of service, would it be worth the expense of maintenance?

Classifying Customers. The surveyor will get more uniform results from all parts of his work if he can classify as much as possible before analysing. Thus, in the study of customers, there are certain divisions into which the subject naturally falls, depending, of course, on the purpose of the investigation.

(1) *Age.* For some purposes it would be advisable to divide customers according to whether they are new or old accounts on the company's books. This would allow consideration of increase in number of new customers, and how much of the volume of sales is due to new customers in comparison with old ones.

(2) *Volume of Business.* Customers may also be classified according to the amount of business they do. Naturally more weight is attached to the opinions of the big companies and the surveyor should make particular efforts to obtain information from them. However, if a considerable volume of sales goes to small customers, their comments also are valuable.

(3) *Location.* Some customers are near at hand and others distant. By classifying them in this way, the surveyor can observe the influence of the geographical location, not only upon numbers of customers, but upon sales volume per customer, etc. He can measure in this way what advantage location and proximity to market gives.

(4) *Foreign.* In line with the above, customers can be classified as domestic or foreign, and the surveyor can make comparisons between the kind of demand, the different requirements, the percentage of profit, etc.

(5) *Quality.* Customers can be divided in some cases into those who buy high-quality goods and those who buy low-quality. This will give an opportunity for the surveyor to observe the relative volume of orders, according to quality.

(6) *Transient.* Another way in which to classify customers is by considering them as transient or regular. This applies to almost every industry. A certain amount of business comes through regular channels and another amount, which may vary considerably, comes from sources which will probably never buy again.

The regular customer is measured by the frequency of repeat

orders. It behooves the company to treat this customer well. When the customer is on the wing and never is going to appear again, it is doubtful if money should be spent in the endeavor to bring him back. The difficulty lies in telling just who is a transient customer. He is quite as likely to prove to be a new customer. The surveyor should notice if possible the percentage of regular customers and the degree of transient trade.

The chain drug store's business is said to be largely transient. The convenient location enables it to sell almost any sort of merchandise which the public will buy on sight. The business of the individual druggist is based on a more personal service.

The hotels are an instance where the usual order is reversed and the transient trade is highly important. Although there are regular guests who make particular hotels their headquarters whenever they are in a city, the profit comes from the attractions the hotel offers to transients. For instance, in New York and other big cities, a large number of people visit there during the year for purposes of sight-seeing who may never go there again. The same is even more true of hotels in certain foreign countries where the tourist trade is the chief source of living, such as the hotels in Switzerland.

In all these methods of classification, the surveyor must bear in mind that it does no good unless a practical application may be made of it. But if customers are transient, it is a decided advantage for the surveyor to know what methods of selling are best adapted to this class. If the customers are looking for quality goods, this is an important point which has a bearing on the rest of the work of analysis. In similar fashion the other classifications pertain to some phase of the investigation. Other classifications which may be valuable will occur to the surveyor relating to his specific problem.

Former Customers. People who have once been customers and are no longer buying from the company may have very valuable information for the surveyor. It is a case of the constructive value of destructive criticism. The fact that they have ceased being customers does not interest him particularly so much as the reasons why they have ceased. Have they found a better product? Have they been approached by better sales methods, and if so, what were they? Have they ever made objections about

delivery, packing, quality, etc.? Is there any possibility of restoring goodwill?

All former customers will not be disgruntled ones. Some will prove to be neglected customers whom the salesman has not been round to see recently. Some will prove to be chronic kickers who believe complaining is the best way of getting service, and consequently are continually changing from one seller to another.

It frequently happens that the reasons which caused a customer to stop buying have long since been removed. This is often the case where improvements in the product have been introduced to overcome just such difficulties. The customer may never have heard of the improvements.

General Conclusions. (1) So far the surveyor has devoted himself to studies of a more or less general nature, but, with the approach to customers, his work becomes positively and immediately constructive. His operations serve not only to bring in information, but they also pave the way to sales.

(2) The customer's reaction is the quickest index of a market and most easily obtained. It supplements the broader indexes got from studies of the industry in general.

(3) The customer has a different feeling towards the surveyor than towards salesmen. He is more responsive and generally feels that his views are being heeded. He feels that his case is receiving careful and personal attention.

(4) The surveyor is in a position, if he has the ability, to act as a liaison officer and to make the customer a part of the company's own organization. He strengthens relationships by making a point of contact other than merely through the sales department. Incidentally, his work acts as a stimulus on the sales department and a check up on its efficiency.

(5) Probably the surveyor can obtain more immediate and tangible value from a study of customers, and with less effort, than he could from any other subject. Prospective customers as well as present patrons may be interviewed. The surveyor can more easily obtain an entrée in a new house than a salesman.

But, after all, the study of the customer is mainly to be considered as a prelude to that of the consumer. In many cases the customer is merely the mirror, the mouthpiece, of the consumer.

He buys what consumers will purchase of him. To understand the motives of the customer, it is necessary to understand the attitude of the consumer, and *his* motives for purchase. Accordingly, the surveyor's next task is a study of the different aspects of the consumer problem.

CHAPTER XIII

THE ULTIMATE CONSUMER

Outline

Why is this product bought?

Do people need it?
Is it bought from habit?
Has some friend recommended it?
Has it been seen on display or exhibition?
Was it bought because of advertising?

What is the influence on the market of the consumer's

Sex:

(*a*) Is it bought by men for men?
(*b*) Is it bought by women for women?
(*c*) Is it bought by men for women?
(*d*) Is it bought by women for men?

Race:

Does the foreign population buy the product? If not, is it because of
(*a*) Racial prejudice?
(*b*) Lack of knowledge?

Religion:

Does religion affect the market? If so, to what extent and how seriously?

Age:

(*a*) Is it bought for children?
(*b*) Is it bought for adults?
(*c*) Is it bought for old people?

Disabilities:

Is the market for the product dependent on any infirmity in the consumer?
(*a*) Natural disability.
(*b*) Result of accident.

Prejudices:

If a prejudice exists, is it
(*a*) Permanent?
(*b*) Temporary?

Buying Habits:

Are consumers influenced by habit in the purchase of this product?

Occupation:

(*a*) Does it determine the entire market?
(*b*) Does it partially determine the market?

Class:

(*a*) Is it bought because of social position?
(*b*) Is it bought because of class taste?
(*c*) Is it bought because of wealth?

Expert Knowledge:

How much skill is required to operate or make use of the product?
(*a*) Must it be taught?
(*b*) Can consumer learn to operate by himself?

Literacy:

(*a*) Is this important in merchandising the product?

Amusements and Hobbies.

CHAPTER XIII

THE ULTIMATE CONSUMER

A STUDY of the market is nothing more or less than a study of a composite number of individual consumers. The surveyor will find it advisable to consider the consumer in two ways.

(1) *As a Unit.* It is necessary to study the average individual making up the group. His character, his habits, and his peculiarities must be scrutinized.

(2) *As a Group.* The average individual must also be studied collectively, which means statistically. In how large groups is he found? Where is he most likely to be found, how much money has he, etc.?

There are two further aspects of every market which entail a consideration of the consumer with respect to the company.

(3) *Potentialities.* What are the company's possibilities of obtaining further business? Fundamental to this consideration is the ratio between the business the company is now doing to all the business there is being done in the field. Unless the company is an absolute monopoly, there are still sales going elsewhere, and it is necessary to consider how many more of these sales can be got for the company.

(4) *Limitations.* Every market has limitations. These limitations are the factors which tend to curtail the expansion of the business. They may be physical limitations, such as the size of the product or difficulties of transportation, or psychological limitations, such as prejudices and habits.

The present chapter will discuss the first point mentioned, that is, the final purchaser as a unit, or, as he is more commonly called, the ultimate consumer. The other points mentioned will be taken up in the two following chapters.

Classification of Markets. Markets can generally be classified according to the nature of the product. No definite classification can be made owing to the vast diversity of products and

the corresponding diversity of markets. But, in general, lines of demarcation may be made, as in the case of the product, between foodstuffs and raw materials, machinery for production, manufactured goods, and services.

The question every manufacturer must ask himself first is: Who is going to use my product? This is a fundamental inquiry. A market consists not only of sales which are now being made, but also of further sales possibilities. The actual market for a product consists of current purchases of that product. The potential market consists of all the people who should be logical consumers of the product, that is, the ones with a need or desire for it and money enough to satisfy that need or desire. Every growing company obtains its success through capitalizing these potential markets.

The actual and potential markets for raw materials and machinery are as a rule well defined. It is known in what ways and where a raw material or a machine may be utilized. But when it comes to the consideration of manufactured products marketed to the ultimate consumer, the question still remains: "Who is the ultimate consumer?" Is he man, woman or child; is he rich or poor, married or single, office worker or gentleman of leisure? A careful study of these seemingly unimportant matters has often been shown, in actual experience, to throw much light on questions which previously could not be explained.

The actual market is seldom as large as the potential market. Ordinarily, there is wide opportunity for expansion. Services and intangible products often have the widest market of all, as far as potentialities go. The personal element affords much chance for broadened activities through careful market analysis.

This classification of products serves to emphasize in the mind of the surveyor just what may be expected in the way of actual and potential markets. In the case of the raw material, he must deal almost entirely with actualities, unless he can invent a new use for the material. In the case of the machine, there is more leeway, since methods of manufacture often change slowly. In the manufactured product, there are usually vast potentialities beyond actual use, and in the intangible field, the possibilities are determined largely by personal ability and effort.

Motives for Purchase. The consumer's motives for purchase are so vitally important that the average business man usually has studied them. Why do people buy? Do they exercise their own discretion in purchasing? What makes them want one line of goods more than another? Is it habit? If so, what formed this habit? Is it advertising? It seems, for example, natural to ask for Quaker Oats in advance of other brands of cereals because of the long campaign of publicity which the company manufacturing this product has kept up. Again people often buy because someone has told them to. This is frequently the case with amusements and books. People also buy things because they see them. Previous to having seen them, they had no thought of purchase. It is, therefore, apparent that people may exercise little or no discretion. This affords an opportunity to the person selling the product to show his ability in creating wants where none previously existed, or, if existing, had lain dormant. It is the faculty of doing this which we know as salesmanship.

As an instance of this, in industrial organizations, articles are usually bought on recommendation of someone other than the man actually going to use them. A manufacturer may buy equipment blindly on the order of his engineering department. The majority of people buy medicines blindly upon a physician's prescription without knowing even the contents.

This matter of ascertaining why people buy is an important study for any person connected with sales work. The sales manager of a company is frequently gifted with excellent vision as to how to get people to buy. But his inability lies in allocating the demand properly. Much energy is wasted in quarters where it is hopeless to expect demand, and much time is spent otherwise which might profitably be devoted to opening up new prospects. A knowledge of motives for purchase is fundamental to the phrasing of any buying appeal.

The Consumer as a Unit. Just as in the law courts, a man's actions are judged by the standard of what a reasonable man would have done under similar circumstances, so too, in the work of market analysis, the *average* consumer is set up as the standard of comparison. In him are typified the buying habits and the peculiarities of the group.

It has been pointed out that the average consumer, if such

a person actually existed, would be quite the opposite of what we think of as average, that is, normal. He would be doing a little of everything, playing golf, riding in a street car, a train, and an automobile every day; he would be an impossibility.

The "average consumer" is a figment of the imagination, created to typify the demands which arise most frequently among the greatest number of people. For him the company prepares its goods, and for him it draws up its plans for marketing them. Therefore, any market investigation must probe into the various traits that go to make up this average consumer. The following attributes of the average consumer are intended to be only suggestive. Every business, of course, will have a different average prospect, with differing average traits. In fact, these specific traits may not have been mentioned here, but may be peculiar to the business. The surveyor will be able to judge this for himself readily.

Sex. Sex has much to do with the market. In the first place, there are a great number of articles sold exclusively to one sex. Men's wear and women's wear are examples. In this very line, however, some interesting anomalies may be noted. Neck-ties are in many cases bought by women for men.

There are other articles which one sex patronizes to a greater extent than the other, although not exclusively. The majority of the patrons of a department store are women; the majority of the patrons of a hardware store are men, yet a certain percentage of the opposite sex makes purchases in both shops.

The important point to notice in market analysis is a tendency of one sex or the other to predominate in purchasing an article, since this will determine in many ways the sales appeal, and perhaps the character of the product offered. The whole market should be analyzed in this light. This factor may determine the character of the advertising and the media to be employed. It will also determine in some measure the place where the articles will be sold, the methods of merchandising, etc.

Race. When considering local markets, the surveyor will be likely to find racial peculiarities which influence the market. For example, it is possible that the foreigner may have a different taste from the native, and that the appeal to his taste lies through different channels. In the majority of cases, race is a strictly

local problem, confined to certain sections of the city markets, and perhaps some country districts where the foreign element is predominant.

According to a survey of the market for margarines, no dealers in the Italian district of Milwaukee were found to carry butter substitutes. Italians were not yet educated to its use. Jewish and Polish dealers handled only a small quantity, or none at all. Dealers of this class constituted 25 per cent. of the total. Practically all the others carried margarines, and therefore this racial prejudice or lack of knowledge constituted a real barrier to sales. The seemingly unfounded peculiarities of other races are usually based upon facts which will become clear on careful analytical study.

Religion. In the past, religious convictions have been genuine bars to the extension of certain markets as, for example, playing cards. This barrier is less marked than formerly. On the other hand, the religious custom of abstaining from meat on Friday has become wide-spread and is a very real factor in the market for fish products.

The surveyor will seldom come in contact with religious limitations of great importance. There are, however, certain industries the outputs of which are limited entirely or largely to religious purposes. For instance, the stained glass industry relies upon churches for much of its trade, the publishers of religious periodicals and books are dependent upon the religiously minded for purchase, etc.

A survey made by Pacific Ports points out that there is a large market for communion veils in South America with prices ranging as high as $300. This is an effect of religious influence on the market carried to an extreme.

Age. The limitation of age is in most cases apparent. It is evident that children's toys, clothing, books, and magazines have easily defined age limitations. Certain infant foods are limited to children during the first few years of their lives.

In many cases, when computing the market, the surveyor must allow for age. The New Orleans *Item*, in its investigation of the safety razor market, figured every male from the age of fifteen up as a possible buyer of a safety razor. There are approximately 3,938,964 people in the Louisiana-Mississippi

territory, 30.5 per cent. of them males above the age of fifteen, or a total of 1,201,383. As approximately 75,000 razors are now sold annually, it can be seen easily that the market is by no means exhausted.

This is a good example of the practical results of computing a market and how the nature of the ultimate consumer determines the amount of sales. That is, the number of razors sold is limited first by the sex and second by the age of the consumer. This will give the surveyor an idea of how he may use similar facts in computing his own market.

Disabilities. Several sizable industries and many minor ones are founded on human disabilities. For example, the optical business is based largely on a disability in eyesight. The surveyor who was attempting to analyze the field for eyeglasses, therefore, should make it his business to ascertain in what sections of the country or of the world eyeglasses were most worn. In tropical countries, for instance, where the glare of the sun affects the eyesight, the market for glasses is greatly increased.

There are several great patent medicine businesses. There are also many makers of artificial limbs. The drug business was originally confined to supplying antidotes and remedies for human ills. The maker of shoes has to take into consideration the number of people with flat feet, etc. Whenever this element of disability occurs, it is apt to play a prominent part.

Prejudice. The surveyor will find occasionally that prejudices are important in determining the market. These prejudices may be temporary or they may be permanent. In many cases it is possible to remove them. The question is whether it is worth the expense.

Food prejudices have been frequent. Some decades ago tomatoes were regarded as poison, the eating of the oyster in a raw state is comparatively recent, and there is still some prejudice against eating young veal. As an example of a temporary prejudice, the unpopularity of the slogan "Made in Germany" might be cited.

There is still a great deal of prejudice against the smoking of cigarettes by women, although there may seem to be no more reason why women should not smoke than there is why men should stop smoking. Actually, however, the prejudice against

women's smoking has been transmitted for generations and the practice has never been universal.

Before the war for a man to carry a wrist watch was a sign of effeminacy, yet this prejudice has fallen by the wayside before a recognition of the utility of the practice. There is prejudice by stenographers against the dictating machine which the various makers are doing their best to remove by means of educational advertising. It has been found by investigation that there is an almost universal prejudice in favor of linen toweling against cotton toweling, and it is believed that for an indefinite time to come people of wealth as a class will buy linen as long as linen is obtainable, regardless of cost.

A prominent trade journal cites a case where an effort was made to change the method of packing shingles. In the old way, four bunches of shingles made a thousand and the bundle was not designed to cover any particular area. The plan was proposed that shingles should be packed so that four bundles, when laid with a certain exposure, would cover just 100 square feet, and because of ease in figuring, and because other roofings were sold in this way, it was thought the change would be welcomed. However, it was found impossible to get the plan adopted, so great was the prejudice in favor of the time-honored method.

There has been in the past great prejudice against oleomargarines, but, as the Baltimore *News* points out in its survey of the margarine market, this prejudice is rapidly disappearing. In 1919 alone sales of animal fat margarines in Baltimore increased 81 per cent. and vegetable fat margarines 51 per cent.

To sum up, there are some prejudices so deeply rooted as to be ineradicable, while others, by educational methods, may be overcome. Here, as ever, the surveyor must probe, analyze, and define. He must thoroughly understand the objection itself, and the reasons, if there are any, which underlie it. Prejudices are important. There are few businesses which are not affected by them. But the place to look for prejudice is not in the company, but without, by direct contact with the ultimate consumer.

Buying Habits. Buying habits, like prejudices, are of importance to the seller of goods. Increase in price during the war compelled marked changes in many buying habits. For instance,

the results from sixty grocers interviewed at that time in an investigation of the Chicago coffee market, were as follows:

Changing to unbranded bulk coffee	20
Changing to branded package coffee	6
Unchanged buying customs	22
Stores not noting buying habits	12

The majority of the people bought the better brands of coffee, price being of no object in comparison with quality. They also found it to be true that nearly one-third of the buying of groceries was done over the telephone, and, therefore, this large percentage of buyers could not be reached through practical demonstration of a product at the store. The telephone habit is an innovation which still presents varied possibilities to the aggressive merchant.

Considerable time and study has been spent on the subject of buying habits. The Crowell Publishing Company conducted an investigation of the buying habits of farmers. An amazing increase was found in the number of farmers who are now buying in the largest towns in their counties instead of at the small stores near their farms. Good roads and the automobile are largely responsible for this. As new roads are constructed, the buying radius of the farmer will increase, and the larger towns will benefit.

In this same investigation it was found that not more than 25 per cent. of farmers buy merchandise by brand. The other 75 per cent. take the product recommended by the dealer. The isolation of the farmer seems to be over, and his former buying habits to have been definitely changed.

Another interesting example of buying habits was observed in an investigation of the market for cotton toweling. The working class, which is the largest potential market for cotton toweling, shows less and less inclination for home needlework. Housewives have less leisure, since many of them still work after marriage. Thus the former habit of making up towels at home has been changed to the buying habit of purchasing towels ready made. It is obvious how important this little discovery was for the company making the investigation.

The surveyor should study habits which people form of buying at certain hours. For example, buying hours are very noticeable

in department stores, where sales run much heavier at certain times, and these times may vary for the different departments. There are also days in certain industries on which sales are much larger. The fact that Saturday is the customary time for payment of wages plays a large part in increasing Saturday afternoon patronage.

"From birth our lives are largely given to the acquiring of habits," says the Butterick Publishing Company.

"Commercially, we form most of our buying habits from 20 to 40. During these years each generation decides for itself.

"The habit of the last generation of the 'Saturday night bath' is displaced evidently, for the modern hotel advertises every room with bath. Perhaps the bathroom fixture people did not bring this change about, but they profit by it enormously.

"Sunkist wants us all to form the habit of using more lemon products the year round. If they can form a new habit or strengthen an old one, they will sell more train loads of lemons."

In general, there is scarcely a habit of the people, no matter how trivial, which cannot be turned to commercial account. The surveyor should not be ashamed to stoop to a consideration of these trifles, which, in the aggregate, may swell into an immense influence for profit and loss.

Occupation. Almost anything which can be definitely established about the average ultimate consumer is worthy of consideration. In what way, for example, might his occupation affect the sale of the product. In some cases it may determine practically the entire market, while in others, exercises almost no influence. To take an illustration of the first case, suppose it were a manufacturer of dental supplies. Then it is evident that the consumers will belong to the dental profession, and further that one consumption index for dental supplies would be the number of dentists available.

Not all products may be allocated so easily according to occupation. What the consumer does for a living may have little or nothing to do with the product. Most food products are sold for no occupational reasons. Yet there are well-known exceptions to this.

Shoes are an example of an industry where occupation plays a part. Military shoes, for instance, are made according to a

certain last. Footwear for farmers is of a certain type. Golf, skating, and baseball shoes are differentiated.

Occupation also plays a part in the market for clothing. The sailor has special clothes, some workers wear overalls with special pockets, in the case of the electrical worker for pliers, in the case of the carpenter for rule and pencil, etc. Occupation also has a curious tendency in respect to the color of overalls. Plasterers and marketmen wear white overalls, railroad men's are striped, teamsters' are brown, while machinists' are dark blue.

On the influence which occupation has on the use of a product the Milwaukee *Journal* has this to say in its survey of the tobacco field in Milwaukee. Of various types of workers, it was found that the man who worked in a shop was a larger user of a pipe, but in most cases smoked cigars after working hours. The office man took more to cigars, and the outside man to cigarettes.

Here again, the surveyor should not be above a study of the minutest details. The average cigar store sells whatever it has to whomever asks for it. But an investigation of this subject showed that there was a distinct division of sales, of various types and prices, and that these divisions corresponded somewhat closely to occupational groups. A study of the various groups served to visualize the average customer more clearly, and such a visualization led to increased sales.

Class. There are certain markets which are not bounded by wealth, but rather by class. As examples of the two extremes might be cited chewing gum and chewing tobacco at the one end, and painting and statuary at the other. The lover of books in his purchasing is not influenced by wealth, but rather because he belongs to the class of book lovers.

Class does not mean social distinction necessarily, although it may do so. People of a certain social standing wear "clothes of distinction." Much has been made of this point by the large clothing houses, who have capitalized their studies of class differences. These distinctions, however, are of more importance abroad than in this country, where practically the only differentiating factor, aside from wealth, is education.

The Chicago *Tribune* finds that demand for bulk coffee is most common among medium and lower class people, while the "Quality Group," an association of magazines, in an analysis of the auto-

mobile market, drew up the accompanying chart Fig. 33, showing the relative position of Fords and other cars. The supposition is that Ford owners may be put in a separate class, owning 47 per cent. of the cars, but in valuation representing but 20 per cent. An understanding of the market in terms of class plays an important part in most merchandizing problems.

Expert Knowledge. The necessity for acquiring special information before being able to use a product has often proved a great hindrance in extending its market. Usually, if the need for the

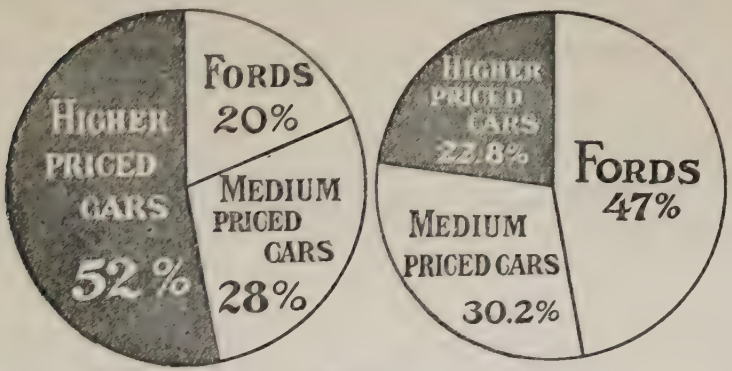


FIG. 33.
Proportion of Ford Cars - by value. Proportion of Ford Cars —by number. (The Quality Group.)

product exists, the number of people acquiring the expert knowledge necessarily increases rapidly. This has been the case with the automobile. A few decades ago, the person who operated an automobile was regarded with as much interest as now is given to the aviator.

The piano is an example of a product in the use of which expert knowledge is required. The same is true of other musical instruments. In all such cases the market is limited by the number of people with ability to play them. This does not hold true for the player piano and phonograph, in the operation of which no skill is required. No sales estimates for a product requiring expert knowledge can be complete without a determination of the extent of this knowledge among potential users.

Literacy. In Chart No. 34, the surveyor may see how the

Southern States are handicapped by illiteracy. In the South 15.6 per cent. of the population cannot read, a decidedly limiting factor, even when it is considered that the purchasing power of the negro is very low.

In these days of publicity and advertising, the consumer who cannot read is, in one sense of the word, isolated. It takes special methods to gain his attention. Ordinary methods of advertising will not be effective. This limitation, however, as the surveyor will find, is of much less importance in this country than it is abroad, where a far larger percentage of the population can neither read nor write.

Amusements and Hobbies. As it is only the abnormal indi-

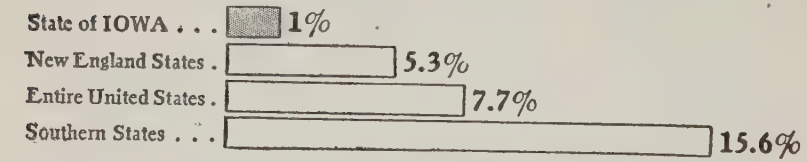


FIG. 34.—Iowa's Illiteracy Rate Contrasted with Other Sections. (Chicago Tribune.)

vidual who does not require entertainment and amusement, there is always a great potential field for manufacturers of devices to divert people. The market for a theatre is almost strictly local. But the market for a moving picture film is not only local, national, but also international. Playing cards, golf balls, tennis balls, chess boards—all these are forms of amusement which have definite markets.

If the surveyor, by any chance, is investigating a product such as the above, he may expect to find it subject to the same rules and laws which govern any other product to be marketed.

General Conclusions. The ultimate consumer is the final court of appeal. Although he is long suffering and can be imposed on for a time, yet, in the end, he is inexorable. The average merchant, unless he is selling direct to the ultimate consumer, does not have a very definite idea about him. He has little time for such things. Although it may seem foolish to go too much into detail as to the character, habits, and peculiarities of the ultimate consumer, yet a knowledge of these matters often reveals striking facts. Thus a knowledge of motives of pur-

chase is fundamental to an accurate phrasing of the buying appeal.

Anything about the consumer which can definitely be established is important. The pettiest trifles, taken in the aggregate, become enormous. The surveyor should always aim to find out what is typical, and to see the consumer as an individual with a distinct personality, character, and even appearance.

CHAPTER XIV

THE NATURE AND SIZE OF THE MARKET

Outline

How complex is the market for this product? How is it affected by

(*a*) Transportation?
(*b*) Credits?
(*c*) Legislation?
(*d*) Competition?
(*e*) Distribution?
(*f*) Advertising?
(*g*) Human element?

How large a territorial extent does the market cover?

(*a*) Is it local, or semi-local?
(*b*) Is it state-wide or covering a group of states?
(*c*) Is it national?
(*d*) Is it international?

How is the market divided?

(*a*) Is it in groups?
(*b*) Is it scattered?

Where is the market?

(*a*) Is it urban?
(*b*) Is it rural?
(*c*) Is it urban and rural?

What proportion of the population use the product?

(*a*) What is the per capita consumption?
(*b*) How many people can afford to buy the product?
  (1) Within what income range does the purchasing power lie?
  (2) If product were cheapened in price, would market be enlarged materially?

Is it possible to locate markets for this product through ownership of other commodities?

(*a*) Does ownership of home make a difference?

(*b*) Does ownership of automobile give any assistance?
(*c*) Will income tax returns help?
(*d*) Must population be literate?

Are there any available data which may be used as an index in computing extent of the market?

Is the market affected by related or interdependent markets?

CHAPTER XIV

THE NATURE AND SIZE OF THE MARKET

Having considered the ultimate consumers as individuals, we must now study them in the aggregate. We are here not so much concerned with individual preferences, needs, and habits, as with the group, and its character, considered collectively.

In preparation, the surveyor should freshen his memory as to the use of statistics, since this approach to the market is primarily of a quantitative nature. The important thing to bear in mind is that, regardless of the figures and details enshrouding them, markets are basically very simple phenomena.

The first step in approaching this aspect of marketing should, accordingly, be to divest it of its complications in order that the market problem may be studied in its bare outlines.

We shall, therefore, begin with a consideration of some of the things which, in any business, are likely to make its market more complex.

The Complexity of Modern Markets. There are certain factors in the machinery of marketing, in competition, distribution, and market demand, which tend to make markets complex. Following are some of the most important of these:

1. *Transportation.* The ever-increasing volume of traffic greatly complicates the marketing problem. The railroad, the steamer, and the automobile, all innovations, have revolutionized and are still revolutionizing the distributive system to such an extent that possible markets for home manufactures have become international. The invention of the refrigerating system alone allows the whole country to have fresh oranges and bananas. The market for them has been enormously broadened. What is true of oranges and bananas applies equally to almost any other product. Increased facilities of transportation allow companies to invade markets hitherto inaccessible. The surveyor, in this connection, should learn whether his company's problems are

handled by the most up-to-date transportation methods and should study especially their effect upon the extension of its market.

2. *Credits.* Since the days of barter, the credit problem has also become more and more complex. The farther away the consumer is from the point of production, the more difficult does this problem become. When the customer is in a foreign country, it is still more difficult. It is to surmount this obstacle that we have our great banking systems with branches and correspondents all over the world. The credit operation is one which has a very real interest for the surveyor, since it is supplementary to the sales problem, and directly affects it.

3. *Laws.* Each state and country lays certain restrictions upon commerce, even to the extent of banning an article entirely, or making the tariff charges practically prohibitive. It is the state's prerogative to regulate commerce, but it adds another complicating factor to the market problem. It is necessary to know where the products may not be sold. Legislation is not always a hindrance. It is of direct benefit. Legislation as to public water supply in trains, although it seemed to work a hardship upon railroad companies, had the result of making business good for manufacturers of paper drinking cups.

4. *Competition.* Some lines of business, as has been shown, tend towards concentration. Ordinarily this process affects those lines which are capable of international distribution, while others are distinctly competitive. For instance, the automobile industry seems to be entering upon a period of concentration. Those industries will tend towards concentration in which it is possible to affect material economies by so doing. Where the supply of raw materials is equally open to all comers, we are likely to have competition. These trends, however, are difficult to analyze. Some industries, like the oil industry, have shown a movement toward concentration and a reaction away from it.

This factor, complicating the problem as it does, is of such moment that it will doubtless have been examined in detail. Statistics on this question are of value in practically every market analysis.

5. *Distribution.* Through what channels the manufactured goods shall be brought to the consumer is a question vitally

affecting the market problems. Shall the middleman be eliminated? Each manufacturer must decide such questions for himself. Some products lend themselves naturally to direct distribution; others do not. Examples will be found in the chapter on the "Industry in General." Whether they do or not can be predicted with reasonable accuracy only through research. (See chapter on "Distribution.")

6. *Advertising.* The immense growth of national advertising has enabled the manufacturer to create demand simultaneously over vast expanses of territory. So great is the effect of this factor on business that it will also be treated at length in a later chapter.

7. *Changing Demands.* The wants of the public are constantly changing.

It has taken a long time to teach this lesson and even now some manufacturers have not learned it. Although you may be able to make the public buy by advertising, it is always well to consider whether it would not be easier and simpler to find out in advance what the public want, and then give it to them. Singer sewing machines are bought because people want them, and they will buy them even if they do not see them advertised in magazines and newspapers.

Only the company which is in line with the times can get the most out of its opportunities. The surveyor's mission is to keep his finger on the public pulse and to be forearmed against vacillations in popular requirements.

With a thorough understanding of the complicating factors, as applied to his business, and the segregation of the essential from the non-essential, the surveyor is ready to proceed with an examination of the fundamentals.

Ultimate Consumers Considered as a Group. What is the extent and size of the market? Is it local, is it state-wide, national, or international? Is it urban or rural? Are the buyers located in groups or are they scattered?

In analyzing a market it is necessary not only to consider the buyers themselves, but also various other factors, many of them being of a purely material nature. These factors will not be alike in any two market problems. A survey of the "Chicago field" as a market for farm tractors, however, made by the

Chicago *Tribune*, will give an idea of the variety of considerations encountered. See Fig. 35.

It was necessary in this survey, First, to study the nature of the soil, its fertility and character. Second, it was shown that this territory had one-fifth of the wealth of the country, although comprising but one-eleventh of its area. Third, the research revealed that this territory produced one-third of the gas engines of the United States, while about one-fifth of its automobiles were owned there. Fourth, a study of the labor situation showed that there was a shortage of man power. (Obviously, the farmer must

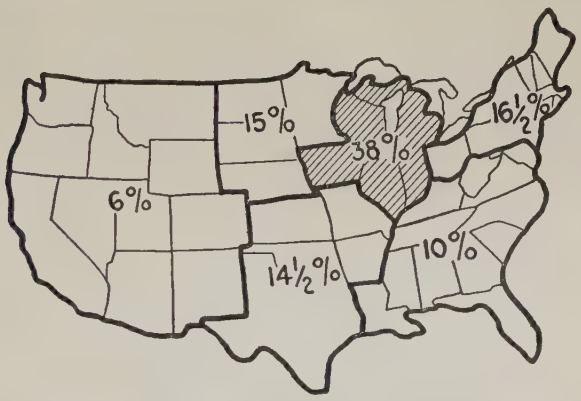


Fig. 35.—Map Showing Geographical Location of Buyers. (Chicago Tribune.)

either be able to hire labor cheap, or he must rely on labor-saving devices.) Fifth, the crops were found to be of such a nature that they required the plowing of a large acreage. Sixth, the size of farms was studied, to ascertain whether, on the average, they were large enough to afford tractors. Seventh, more tractors had been sold in this territory than in any other section of the country, so that special knowledge as to their operation was fairly common.

It will be seen that each of the above points plays an important part in the problem. There is not one which the surveyor can afford to ignore. Yet it is not sufficient to treat of such matters in a purely qualitative manner. In any market analysis facts and figures are of value only when they are accurate and are known

to be accurate. Errors are fatal to the success of the survey, and are likely to cost the company a large financial loss.

Figures, of course, are dangerous. The man who makes market analyses by merely jumping at conclusions is a liability. It is easy to reckon that there are nine million automobiles in the United States, and that as each of them requires four tires a year the annual market for tires is 36,000,000. But no market analysis problem is quite so simple. More complete figures are necessary. There are exceptions to be made and errors to be allowed for. The computation of the extent of a market cannot be made on the back of an envelope.

For a retail business, the geographic extent of a market can be shown with some accuracy on a map. Such a map is illustrated in Fig. 36, showing Boston's shopping zones. It will be seen from this that distance from the center of the shopping zone has important bearing on the frequency of purchasing. Fig. 37 shows interlocking market zones in the state of Massachusetts.

The consideration of the consumer as a group is just as important as the previous discussion of him as an individual. In the latter case, the surveyor's task is largely statistical. He should be able to make up charts similar to those illustrated in this chapter. In all this section of the work, however, the surveyor must take the utmost care to avoid inaccuracy in figures.

Sources of Market Information. Whereas the competitors, dealers, and middlemen will have much information to contribute about the product and the company and the industry, when it comes to obtaining information about the market, its character and extent, the surveyor can get much help from statistics. For example, there are certain types of statistics which recur in a great many market investigations, such as the study of population and the study of wealth, and these are a part of the stock in trade of the professional market counselor.

As to the sources from which statistics may be secured, the surveyor will have to depend on his ingenuity. Nothing more than an outline can be given here, for the reason that the specialized sources are so numerous as to preclude mention, and that these sources are constantly changing. The Government is, of course, the great fund of general information, not only in the

various reports, but in figures on special industries which it publishes from time to time.

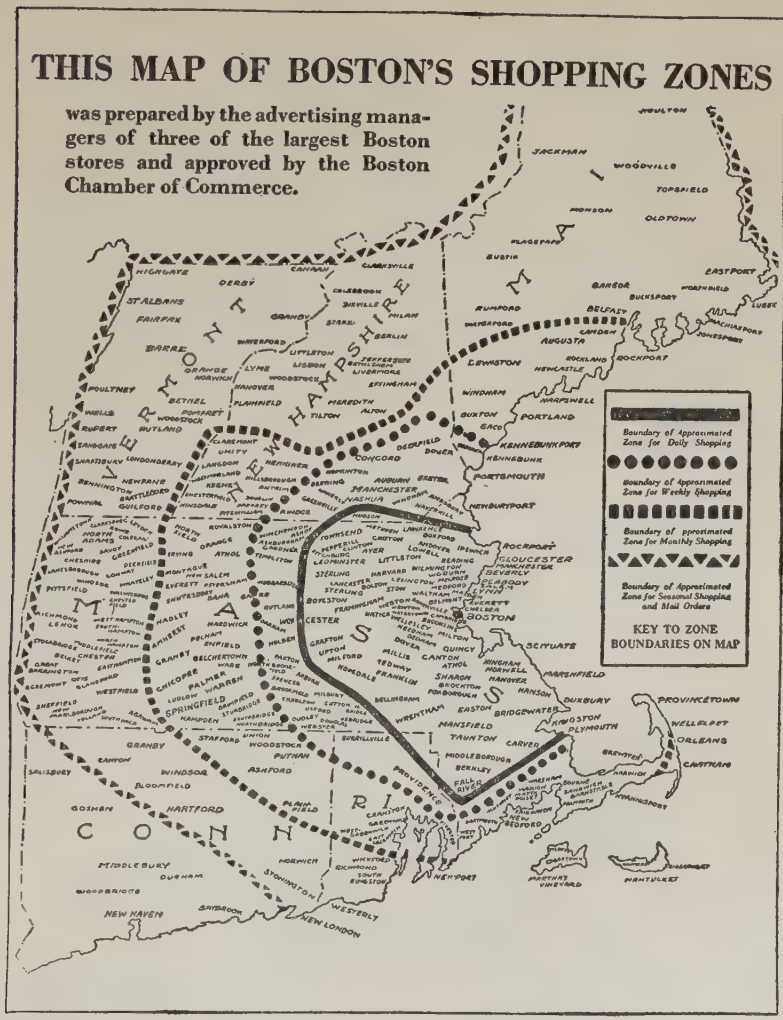


FIG. 36.—(Editor and Publisher)

One of the best things for the surveyor to do is to go to a large library and get up a bibliography of books on the subject being investigated. Another plan is to write to the trade journals

and trade associations which frequently have more or less thorough compilations of data concerning the industry.

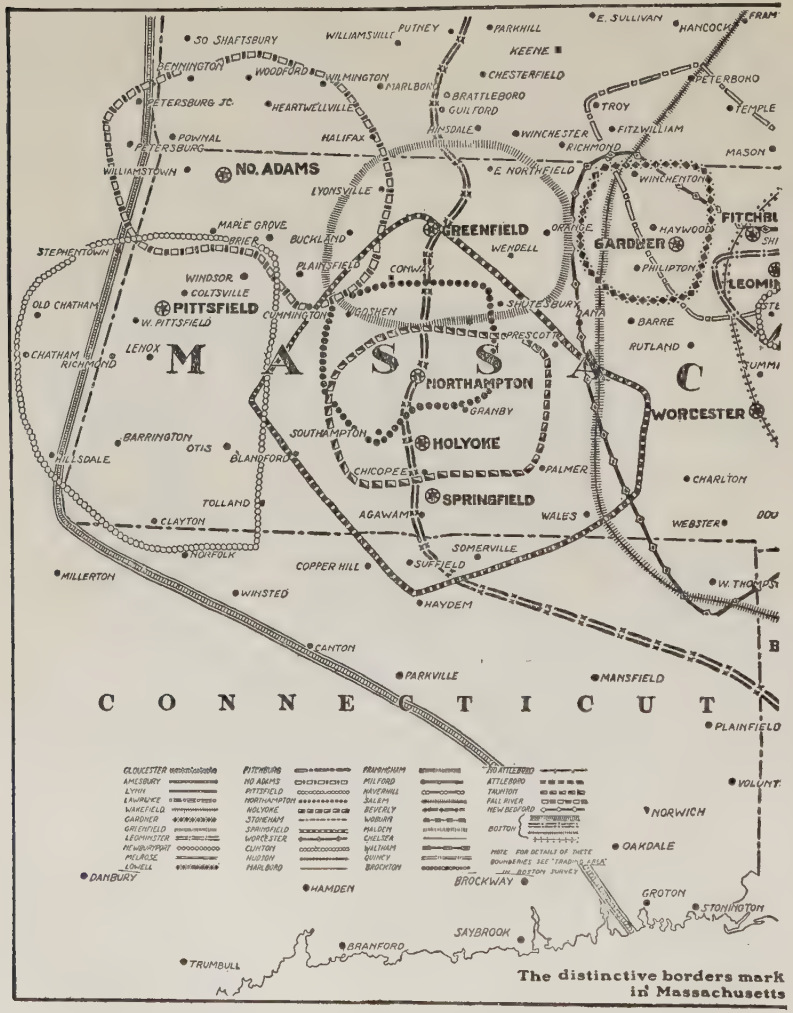


FIG. 37.—(Editor and Publisher)

Population. Of the general statistics, applying to many markets, those concerning population are the easiest to obtain and often the most important. Markets in the final analysis

are people, individuals. We can find out much about consumers, if we set about making a fairly thorough study. Nor should we

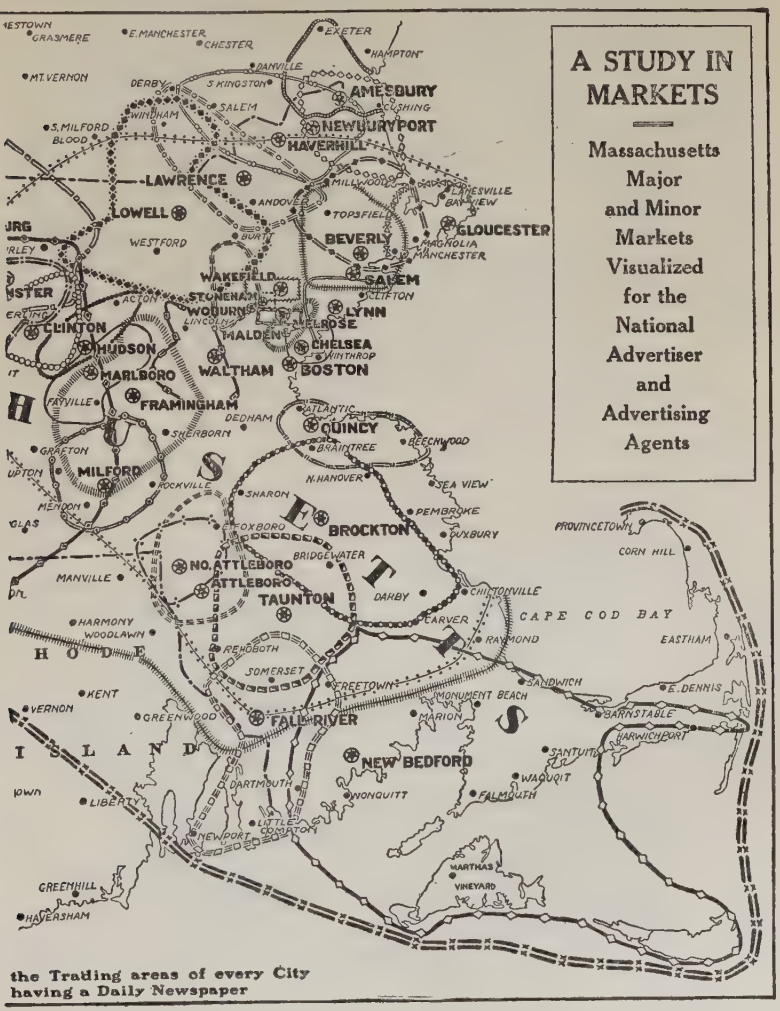


FIG. 37*a*.—(Editor and Publisher)

despise libraries and scientific treatises merely because the average business man rarely has recourse to them.

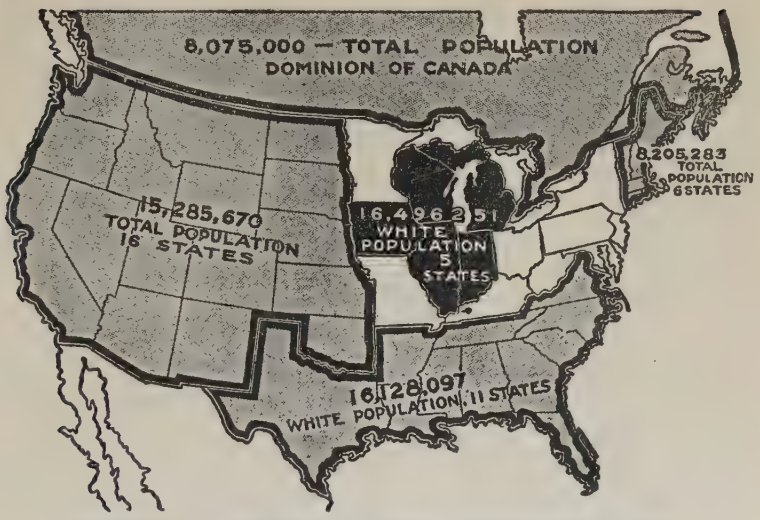
If we are planning to make a study of the market for overalls

in a textile community, we must examine the number of mill workers there, their average wage, their average family, the number owning their own homes, the foreign element, etc.

Studies of this nature have become more and more common. The New Orleans *Item*, in making a survey of its territory for baking powder, made the interesting discovery that the consumption of pastry there per capita was greater than in any other American city except New York. It was found that the increase in the chain system of bakeries had to some extent been responsible for this fact. The point is that this discovery was of paramount importance to a newspaper which was attempting to show baking powder manufacturers the importance of advertising their product in its particular territory.

Calculations of per capita consumption are, of course, very common. The Milwaukee *Journal* computes that the average person in its territory eats 10.2 packages of cereal per year. Other market comparisons, with population used as a basis, are shown in Fig. 38. But population figures are of themselves likely to prove misleading. There are few commodities used by the entire population. Markets for the majority of goods, even foodstuffs, are restricted, either geographically, or by class, or otherwise. Here again, the surveyor must keep in mind the importance of complicating factors, and the extent of their effect upon his problem.

Concentration of buying power is a subject which has been given much attention by publishers of magazines which cater to the wealthier classes. The editor of one of the Nast Publications, for example, has shown how buying power is highly concentrated in certain homes. The Department of Labor, he points out, has estimated that the average family in the United States which has an income of between $1800 and $2100 spends about $610 for food. This average family is composed of 4.5 persons. But the so-called " Nast family," while it has only four persons, usually supports two servants and two guests. This brings the size of this family up to eight, or nearly twice the size of the " average " family. Families of this type, according to the editor, have incomes of $8000 or more a year, or four times as much as that of the average family; so that they can afford to buy a much higher quality of food, and also larger quantities of it.



Comparison of The Chicago Territory (Illinois, Indiana, Iowa, Michigan and Wisconsin) with other sections of the United States and Canada.

Comparison of area and population of the City of Chicago with area and population of seven western states.

FIG. 38.—Market Comparisons, with Population Used as a Basis. (*Chicago Tribune.*)

Mr. E. W. Bachman, of the " Quality Group," follows a similar line of reasoning. He has, by a study of income tax returns, ascertained that the wealthiest general market in the country is composed of 618,000 incomes of $4000 or more. With these figures as a basis, he has worked out a low limit, or " bottom " of the market for expensive products—that is, the lowest income which will permit the purchase of the product.

Before the surveyor can make accurate computations, he must have the population figures as a basis. The application of all the other factors limiting the consumer as a group is dependent on this primary knowledge. When the surveyor can answer the question of how many people there are in my market, he is ready to go on with the other factors which eliminate certain sections of the population.

Purchasing Power. It is necessary not only to learn how many people will buy the product, but how much money they have to spend. This question of purchasing ability takes us considerably farther than questions of per capita consumption. We invariably study population in the light of wealth. This will immediately eliminate a large proportion of purchasers, so far as most commodities are concerned.

It is easy to confuse readiness to purchase with ability to purchase. A market survey may show, from actual interviews with prospective consumers, that there is a large market for some new product, but when it comes to the point of actually parting with their money a great many of those who had expressed a desire for the article will fail to purchase. In estimating markets on the basis of such information, the surveyor should protect himself by allowing a liberal factor of safety.

It makes no difference whether there are ten million people who desire player pianos, if the ability to buy is confined to one hundred thousand of them. Such limitations are met by manufacturers in various ways. In merchandising shoe machinery, for example, only a certain percentage are possible purchasers, because the rest cannot afford the price. It would be poor policy to sell machines to such prospects, because they could not afford to pay for them. As an alternative, the machines are leased to them on a royalty basis.

Again, there are other expedients. When a company finds

it has exhausted its market at the price originally demanded for its product, recourse is often had to cheaper materials, and an appeal made to a lower grade of market, thus enlarging the scope for sales. Publishers of popular novels do this as a regular practise, getting out a cheap reprint edition as soon as danger of affecting the sale of the early and expensive editions has passed.

Purchasing power is a necessary study in any computation of the market. It is a definite and usually unchangeable factor of limitation. The only lasting way the company can cope with this limitation is by reducing its price. Some choose to keep

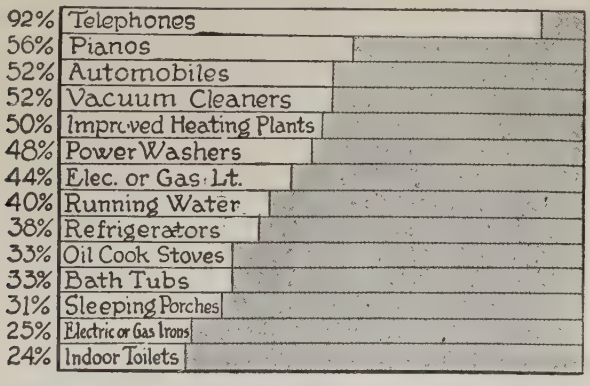


FIG. 39.—Buying Power of an Iowa Home, as Indexed by its Modern Improvements. (*Chicago Tribune.*)

their prices low and to cater to a large market; others to keep prices high and to appeal only to an exclusive clientele.

The surveyor has several sources of information as to the purchasing power of a given market. Income tax returns are one source, and there are other evidences. The ownership of other goods and chattels may be taken as another indication. The purchasing power of a home in Iowa has been estimated by such a method, and the results are tabulated in Fig. 39.

The ownership of homes is often taken as an evidence of purchasing power. It has been stated that of the population of Iowa, 57 per cent. own their own homes, while in Massachusetts the percentage is only 32, and in New York 30. The same authority states that one family out of every two owns an automobile. These facts should not be misconstrued. They indicate an even

distribution of wealth, more than anything else. There are other communities, such as India, where the per capita buying power is very low, and yet where there are many exceedingly wealthy individuals, numerically considered.

Literacy may be considered as another index of purchasing power, as mentioned in the previous chapter. A good education, and high standards of living, bespeak the man or woman who demands the best. In a certain farm community, 22 per cent. of the inhabitants who had had common school educations had bathrooms, while 27 per cent. of those with high school educations had their houses so equipped. Among the college graduates, the proportion amounted to 48 per cent. Similar percentages were noted when other so-called luxuries were studied. The surveyor must take these instances merely as suggestive. Each business has its own best market index, and it is the surveyor's task to work out that index as best he may.

Market Indices. In estimating the potential market for any commodity or service, the surveyor may often make use of statistics already compiled or readily available. The most helpful information is obtained by selecting some group of statistics, the connection of which with the product is known, and from them computing the potential market for the product. For instance, the potential sale of electric flat irons is dependent upon the number of houses wired with electricity. By taking the figures for electrically wired houses, the surveyor will have one index of the maximum market for electric irons.

Theoretically, there is at least one index for every commodity. Actually, it is seldom easy to find a single index which is accurate. There are complicating factors and statistics impossible to get. Usually there is more than one index, and the attempt should be made to obtain indices which both supplement and check each other. For example, one index of the market for automobiles might be the miles of good road per inhabitant of a certain district. Yet it might also be a line drawn by per capita wealth or income tax returns, some means by which the wealth of the average individual might be computed. Neither index alone would be accurate, while the two might be utilized in an equation that would work out satisfactorily. The inadequacy of using only a single factor as such an index may be observed by reference to Fig. 40.

Car Distribution Not Uniform

The total road mileage of the United States outside incorporated towns and cities is about 2,456,000 miles. With a total registration of 6,146,617 motor vehicles there was, therefore, an average of 2.5 motor cars for every mile of public road in the United States. The distribution of cars among the several states, however, is far from uniform. Thus, Nevada has but 2 cars to every 3 miles of road, while Rhode Island has 16 cars to each mile of rural road. Furthermore, while there was an average of 1 motor car registration for every 16 persons in the United States, in the States of California and Nebraska there was 1 car for every 7 persons, and 1 car for every 8 persons in Iowa and South Dakota, but only 1 car for every 51 persons in Alabama, every 46 in Louisiana, or every 42 persons in Arkansas.

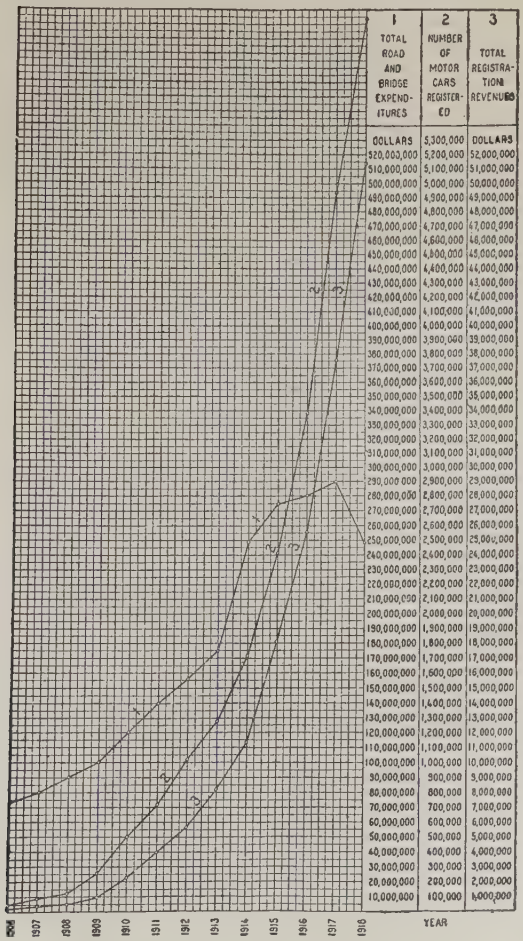


FIG. 40.—Chart Showing Inadequacy of a Single Index. (*National Automobile Chamber of Commerce.*)

A manufacturer of filing cabinets adopted a highly ingenious scheme, devised by Mr. Webster of the George Batten Company, for calculating his market by means of the number of stenographers and bookkeepers in the city. He allowed one filing cabinet for a certain number of clerical workers, having found by experiment that this was a fairly accurate measure.

Such market indices are likely, indeed, to be misleading, unless their adequacy has not been tested out by actual trial. One might suppose, offhand, that density of population was an index for the hotel business. This is, however, an unsafe guide. States with large negro population do not come up to the average, while states with good roads, like California, seem to show up unusually well. States with large cities do a big hotel business. Cities on the other hand, like Newark, New Jersey, and Providence, R. I., which are near a metropolis, rarely support the usual quota of first-class hotels.

In many cases, the surveyor must concern himself with both original and replacement markets. For instance, the manufacturer of shoe laces would estimate his original market on the number of shoes manufactured, this being his index of the market. But it will be a harder matter to find an index for the market for shoe laces which are put into old shoes.

New indices are constantly being tried out for markets. A telephone company used the amount of paint sold as an index. The farmer who painted his house was likely to want a telephone.

In such work, however, the only test for a seemingly successful index is the test of time. Merely because an index is accepted by a sales manager as a basis for his quotas, and because his force has lived up to these quotas, does not prove that the index is a fair one. Just because the farmer has not painted his house is no reason why he cannot be sold a telephone. Such an index should only be taken by and large, and not as applied to the individual case.

Location. Markets in some cases are distinctly limited territorially. For example, the market for the local newspaper is restricted to the urban district and to the territory immediately contiguous. It can rarely hope to have a very wide circulation because it cannot appeal to an audience not interested in local affairs.

Magazines and trade papers are to a considerable extent exempt from this localizing influence. In the former case they are national in distribution; in the latter case they are limited to the trade, which may or may not be national. Some farm papers aim at nation-wide circulation; others aim to be local.

Retail stores vary in the territorial extent of their market. For instance, the butcher shop and the corner grocery store have distinctly limited territories. The department store has a wider territory.

The manufacturer may or may not be limited territorially. It depends on his size, in his product, and on his distributive facilities, as well as upon other factors. The manufacturers of ice cream are confined territorially by transportation limitations. A point is reached beyond which it is not profitable to attempt competition with products nearer that market. Bread, for instance, is a product in which the margin of profit is very close and it is not possible to reduce expenses to the point of entering competitive fields, unless they are near home.

The development of refrigeration has extended the markets for perishable foodstuffs. Even then, the market is limited territorially by the length of time the product can be kept. Peaches, for instance, ought not to be on the road more than three days, even in refrigerated cars. Oranges will stand a much longer trip.

Thus, before making any recommendation as to the extension of sales fields, the surveyor should make sure that the market has not certain inherent and inflexible boundaries. The money required to enlarge the territorial extent of the market might better be applied, perhaps, to its intensive cultivation. Limitations, other than those of a territorial nature, will be treated of in the next chapter.

Related Markets. Business has become so complex, and various industries are so interdependent, that the surveyor will do well to extend his study beyond that of the market for his particular commodity. He can often check up his results by an examination of allied markets. In the textile soap industry, the market for woolens has a decisive influence on soap sales. If the mills are inactive through lack of demand, there is a consequent inactivity at the soap factory. Figures on the wool industry are easy to obtain, and are thus of value to the student of textile soap.

This same close relation is shown in all industries dependent on other industries for their prosperity. It is true, therefore, in the automotive accessory business and the tire industry, that when the market for automobiles becomes inert, the support is also gone from the accessory business. That is, the same factors which tend to disrupt the parent industry will have a similar effect on the dependent industries.

It is out of the question to study all related markets. In some cases, such as in the coal market and the steel market, there is a tendency for both to rise and fall together, on account of the great use of coal in the steel industry. Related markets are most valuable to the surveyor in the event that such a direct connection can be traced.

On the other hand, the surveyor should not place entire dependence upon his neighbor's prosperity. The fact that since related business is encountering depression may not mean that his own sales must fall correspondingly. He should remember that one of the best results of market survey work lies in the stabilization of output.

Methods of Approaching Markets. The way in which a company attempts to reach its market depends on the nature of the product and the character of the market, territorially and individually. Who is going to use this product? If it is a cotton spindle, the surveyor knows that the market will be found in the cotton mills, while if it is a hair brush, the surveyor knows that nearly every man, woman, and child in the country will use one. In the case of the spindle, there is a very definite problem of reaching the purchasing agent at the mill. In the case of the hair brush, there is the infinitely broader problem of reaching the population of the United States.

Does the consumer need the article that the company is trying to sell to him? It is rather hard to define what a man needs. He may hardly be able to make existence bearable without tobacco. He may need a piano, or an automobile, or a silk hat, if he is a pianist, an automobile salesman, or an undertaker. What is a necessity to one may be valueless to another.

Considering wants, many people do not want certain articles until after they have seen them. A child does not need, or even want, a gyroscopic top if he has never seen one, but the minute

he has seen one, he is apt to consider it an absolute necessity. It is a trait of human nature recognized by salesmen that if a want can be made acute enough a person will buy regardless of whether he can really afford it or not. Many individuals have mortgaged their homes in order to obtain automobiles. There are companies the exclusive business of which is financing persons who wish to buy automobiles on a credit basis.

The surveyor will have to make several classifications in this connection. He will have to decide whether the article is an actual necessity like salt or sugar or flour; an acquired necessity, such as tea, coffee, and tobacco, or an apparent necessity, that is, an article which the person thinks he cannot get along without and which is, therefore, apparently a necessity to him.

The approach to markets, in general, will be treated in the following chapters.

General Conclusions. By this time it may seem to the surveyor that he has been wandering in a labyrinth. However, he will have established his ability if he has been able to keep his bearings. But it is essential for him to pause periodically and take counsel with himself, to order his work, and to compare it with the campaign as mapped out in the beginning. Thoroughness is as important in commercial as in any other research work, and is perhaps more difficult of attainment on account of the multiplicity of variations and uncertainties. But it is only by combing through every possible source that he has any surety of running across the bit of information which may perhaps act as a magic wand, converting mere prospects into paying customers.

Despite the importance of examining even the slightest detail, there is the coequal necessity for paring down problems to their very lowest terms. In this chapter, the attempt has been made to show the surveyor how he should eliminate the complexities and leave standing only the true essentials.

But the structure of markets is not solid. Markets are plastic. They are restless, yielding, changing. The demand of today is gone tomorrow. The surveyor's task is never really completed until the company closes its books.

CHAPTER XV

THE POTENTIALITIES AND LIMITATIONS OF THE MARKET

Outline

Where do the best opportunities lie for extending the company's markets?

(*a*) Are they through exploitation of undeveloped fields?
(*b*) Are they in entering fields already occupied by competitors?

What are the factors necessary for computing potential markets?

(*a*) The original market.
  (1) Who are the actual users of such products at present?
  (2) Who are the logical users of such products?
(*b*) The replacement market.
  (1) What is the life of the product?
  (2) How many people are actually using this product now?
  (3) What use does the product receive, and how often is it used?

What are the chief factors which limit the market? What is the effect of

(*a*) Price.
  (1) At what price is the bulk of the product sold?
    (*a*) Is this price determined by competition?
    (*b*) Is it influenced by custom?
    (*c*) What other factors help determine the price?
(*b*) Fashion.
  (1) How quickly do market requirements change because of style?
    (*a*) Is change rapid, as in millinery?
    (*b*) Is it slow, as in furniture?
(*c*) Cost of operation.
  (1) What part does economy in operation play?
  (2) What is the percentage of repairs necessary as compared with other competing products?
  (3) How much attention must be paid to it?
(*d*) Seasonal factors.
  (1) Is seasonal fluctuation of demand unavoidable?
  (2) Is it susceptible of correction?
  (3) Are foreign outlets a solution?

(*e*) Climate and weather.
  (1) Do they restrict use of article partially or entirely?
  (2) Do they necessitate the use of different articles in summer and winter, such as lubricating oils, overcoats, etc.?

(*f*) The second-hand market.
  (1) To what extent does demand for the used product affect the market, and why?
    (*a*) Is it because of lower price of second-hand article?
    (*b*) Is it because second-hand article gives adequate service?

(*g*) Government restrictions.
  (1) Are these imposed because of nature of the product?
  (2) Are they tariff restrictions?
  (3) What effect do licenses have on the market?

What effect do periods of prosperity and depression have on the market?

CHAPTER XV

THE POTENTIALITIES AND LIMITATIONS OF THE MARKET

The market has hitherto been considered in relation to the unit, that is, the average consumer, and in relation to the group. It remains to consider it from the point of view of potentialities and the limitations thereon. How much more business is it possible for this company to get, and what are the limitations on the market? What are the factors which tend to restrict the scope of sales activity, and of how much importance are they? These questions must be investigated by the surveyor before his task of market analysis is complete.

The Potential Market. What are the opportunities to extend the company's sales? Are they at the expense of competitors, or do they lie through the development of new fields? It has been pointed out previously that, as a general rule, it is a risky and expensive undertaking for a company manufacturing an article in which there is great competition to attempt to capture trade from companies already established. There would be the inertia of goodwill to be overcome, a distributive mechanism to set in motion, the possibility of a long and costly price war in addition to an educational advertising campaign. For a company without ample financial backing, such a venture would, under ordinary circumstances, be precarious. For any company, it should be a matter for most careful consideration.

It is part of the surveyor's task to study this question from all angles. If his company has an individual product, or one the field for which is not already preëmpted, the proposition is different. In the case of a new product, the difficulty of overcoming competition does not yet exist. If it is an improvement over an old product, there may also be good opportunity.

Chart No. 41, prepared by the Chicago *Tribune*, is intended to show why the Chicago territory offers least resistance to motor

truck propaganda, based on the analogy of automobile ownership, and that more automobiles in proportion to the population are owned in that territory than anywhere else in the country.

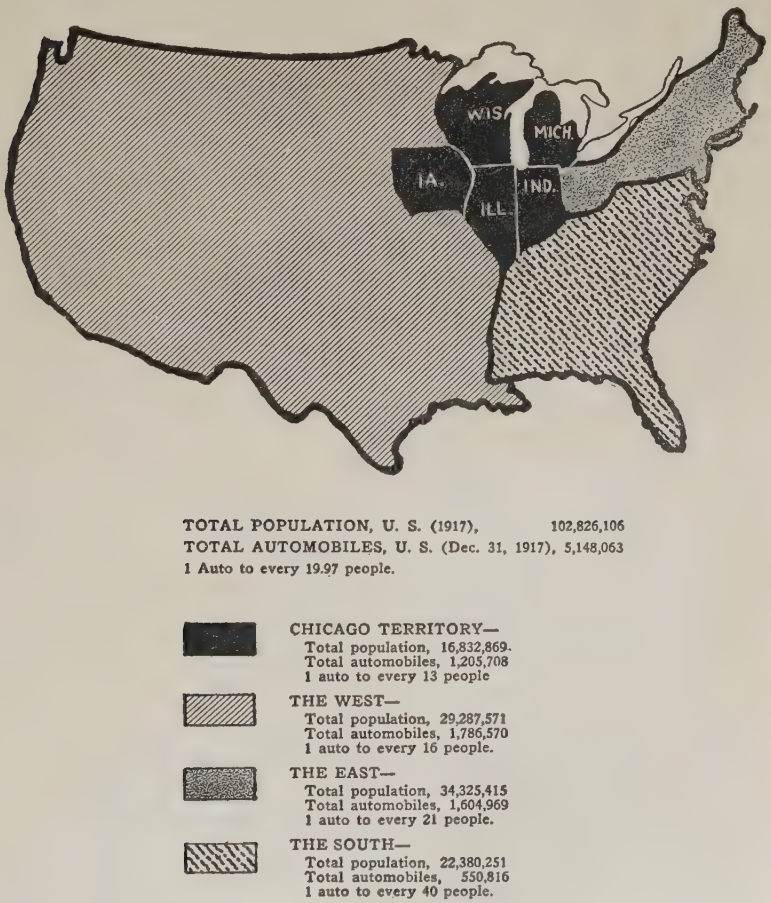


FIG. 41.—Map Comparing Number of Automobiles in Various Sections. (*Chicago Tribune.*)

If a new territory is to be entered, obviously the one to be chosen is that which offers the minimum sales resistance. It is not enough for the surveyor to show where the market must be extended. He must prove which territory or section is best,

what its yield should be, how long it should take to cultivate it, and what the cost would amount to.

Limitations on the Market. Before becoming enthusiastic about a potential market, the surveyor should consider the obstacles which obstruct it. Every market has its particular limitations. It is rare to have one limiting factor; usually there are several. Theoretically, every house wired with electricity is a market for a washing machine. Actually, only a certain percentage of this number of electrically wired houses is a market, since the limiting factors of income, custom, dependence on a laundry, etc., reduce the potential market.

In considering these limitations on the market, the investigator must study the matter from the point of view of the particular product and company, rather than from the point of view of the industry. Each company has certain advantages or disadvantages over other members of the industry. One has preferential location, another secret or patented processes, another an excellent distributing organization, etc.

It is difficult to distinguish between a limitation on the product and one on the market. The two are interrelated; they react upon each other, An electric fan which runs on direct current is restricted to houses with direct current service. Both the use of the fan and its market are limited. Yet, because the market limitation is, after all, the most important, the subject of limitations is treated in this section on markets.

Following are some of the important limiting factors which are likely to be encountered in market survey work.

Price. In nine cases out of ten, price is the greatest of limiting factors. The figure at which the company is prepared to sell the product will often determine the market. For this reason, the object of many market surveys is to fix a price at which the product may be sold in quantity, while still allowing a fair margin of profit for the manufacturer.

In the case of nearly every product, there is a price at which the majority of sales are made, that is, the average price. In products sold higher than this, the quality appeal predominates; in products sold under this figure, the price factor is predominant. Opinion differs as to the importance of this price factor. The Milwaukee *Journal* found in their survey of the tobacco field that

the most popular cigar was sold two for 25 cents, the most popular cigarette was the 20-cent size and the most popular tobacco sold for 17 cents. In other words, the majority of people paid these prices for their smoking materials. But when the dealers were asked if price was a decisive factor in determining sales, 68 said "no," 47 said "yes," and 17 said "occasionally." This would lead to the belief that dealers themselves had no very accurate idea of how great a drawing card price was.

In the final analysis, price is regulated by competition. Price either induces or prevents sales. It is, of course, a trait of human nature to charge all that can be got, and pay as little as necessary. Fortunately there are controlling factors which, over a long duration of time, prevent sustained excessive charges. Production efficiency is the great argument for our large corporations, and a reasonable price for the competitive system.

Prejudices of the consumer may have some effect on the price. It was found in one instance that consumers were paying 10 cents a pound more for colored than for uncolored margarine. But prejudice does not always account for discrepancy in price or yet does relative cost of manufacture or competition. A safety razor retailing for $1 may be better than the one retailing for $5. One explanation of the large sales made by higher-priced razor manufacturers is that people have so much trouble shaving that many prefer to buy the most expensive razor, supposing it will prove most satisfactory.

The surveyor must regard the problem of price from two angles: first, the price at which his company can afford to sell the product, and second, the price which the public will pay most readily. With these two points in mind, he can always render a decision, providing that excessive competition or some other serious situation does not compel the company to adopt a different price policy.

Fashion. Fashion both makes and limits market opportunities. One year, fashion will create a market for ostrich feathers and, the next season, the demand will be gone. There are fashions and styles in almost every kind of product. In most instances, taste changes slowly. Styles in electric fixtures, in furniture, in machinery, change at long intervals. Automobiles change in

appearance more frequently. Clothing and millinery are so uncertain that they may not last the season.

Therefore the surveyor must notice, in computing his market data, to how great an extent this limiting factor of fashion will affect the market. Will it have practically no influence, as in the market for typewriters, or will it be decidedly a limiting factor, as in the market for footwear?

In considering fashion, the surveyor should ascertain first, how deeply this factor affects the market, and second, how rapidly it changes. It may not be possible to establish mathematically the exact coefficient of this speed element, but some quantitative

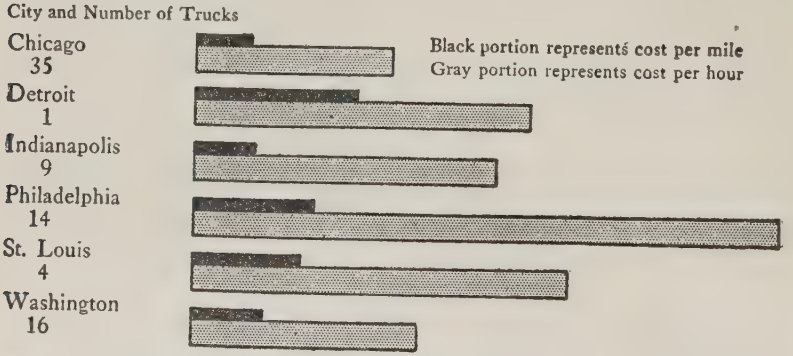


FIG. 42.—Cost of Operation of Government Owned Post Office ½-Ton Motor Trucks at Principal Cities. (*Chicago Tribune.*)

expression of this factor is desirable, particularly in connection with study of the turnover of stocks.

Cost of Operation. One of the first questions the prospective automobile owner asks the salesman is: "How much does it cost to run?" That is, it is not always the initial price that determines the sale, but the economy in operation. The accompanying chart, Fig. 42, is interesting in that it shows the widely differing costs of operation of government post-office trucks in the principal cities. For instance, the three-quarter ton motor truck in Chicago costs less than half as much to run as in Detroit or Philadelphia.

The surveyor should not fail to ascertain the cost of upkeep of the product, what the percentage of repairs is, etc. It is conceivable that a highly efficient machine would cost more to the

owner in repairs than the saving effected over a less efficient but more reliable one.

Such studies are valuable, not only on account of the actual information they yield, but also because they supply considerable sales material. Buyers are commonly becoming very keen in their analyses of markets, and are susceptible to persuasion by figures obtained from actual tests. It is important to remember that such tests are much more valuable, from a sales angle, if they are comparative.

Seasonal. In almost every business there is a dull season. It may be no more than a slight falling off during the summer or winter. In that event, the effect is small and the market fairly stable.

In other cases, the business is highly seasonal. For instance, the seed business comes into prominence for a few months during the spring and sinks back into dullness again. This is an unavoidable seasonal limitation. Seeds will grow outdoors only during the summer. The florist has another seasonal problem in that his markets tend to be much larger at Christmas and Easter than at other times. Fourth of July is responsible for most of the fireworks business, and the Christmas festivities have come to be regarded as accelerating retail purchasing generally, not to mention its effect on the toy business and the manufacture of Christmas tree ornaments, Christmas cards, Christmas candy, etc.

There has been a concerted effort recently by many industries, supposed hitherto to be seasonal, to remove their products from the seasonal to the all-year-round class. The toy manufacturers have advertised extensively with this end in view, and growers of walnuts and almonds have also attempted it successfully.

The surveyor must determine the degree of seasonal fluctuation, and whether this is inherent and unavoidable, as is the case with men's straw hats, or possible of correction, as in the case of lemons and raisins.

The tractor business is seasonal. Tractors are sold in the early spring. On the other hand, the tractor, like the automobile, is manufactured on a quantity production basis, and to be done economically, production must be maintained at a constant level day in and day out. One limiting factor on the tractor

market is evidently the seasonal character of the demand. To avoid this limitation, the more progressive tractor companies have extended their markets south of the equator where the seasons are exactly the reverse of ours. Here they find the demand which supplements the home requirements.

The accompanying chart, No. 43, shows the highly seasonal character of the tire business, with high spots in March and July and depression during November and December. Some grocers

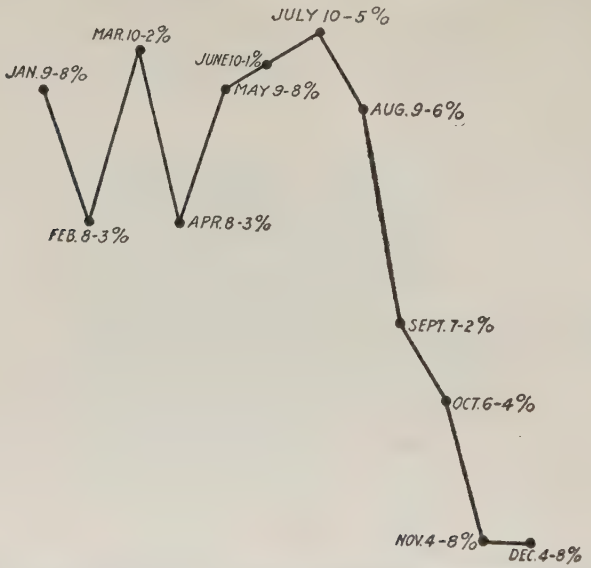


FIG. 43.—Average Monthly Tire Sale, Showing Percentage of Sales Each Month from Factory to Dealer or Jobber. Based on Three-year Average. Statistics Class Journal Co. (*The Quality Group.*)

say that in winter months oat and wheat cereals are in considerably greater demand than in the warm months. Along this same line, it is said that sales of oleomargarine fall off about 25 per cent. during the summer months, due to the fact that less food of a fatty character is used during hot weather. The Baltimore *News* supplies the following reasons from its investigation, showing the wide diversity of opinion the surveyor may encounter along such lines: One dealer said decrease in the summer was due to increased production of creamery butter during the summer and

the lower price compared with winter of real butter; another said it was on account of increased consumption of fruit and vegetables, and a third said in warm weather the spread went further. All are plausible and perhaps each is a contributing factor to the undoubted decrease.

The surveyor can do much to show his associates the great possibilities of stabilizing seasonal fluctuations.

The International Harvester Company, according to *Printers' Ink*, found it necessary to educate its salesmen in order to make them regard cream separators as an all-year sales proposition. Coco-Cola, through advertising, was able to make some soda fountains in the South remain open all winter, and appreciably prolonged the season elsewhere.

Many other examples could be introduced, but these are sufficient to show the surveyor the importance of seasonal demand and the necessity for examining it carefully. It may be possible that the seasonal character of the demand is not ineradicable, but due to custom or some other equally removable obstacle. In this connection, it may be possible to introduce a new product, the sale of which follows a different seasonal law, and thereby stabilize production.

Climate and Weather. The surveyor will find that climate and weather influence the market more frequently than might be imagined. Some of the commoner effects are well known, and often quoted. Umbrellas, for example, cannot be sold in New Mexico, where it does not rain, nor woolen overcoats in Florida, where it is not cold. In the dry farming country, a particular type of agricultural implement is required. The grade of lubricating oil used varies with the climate and the temperature. The surveyor might delineate the market for furnaces by an isothermal line. So, also, might he plot the market for snow shovels.

Some curious effects of the climate are not so apparent. For instance, intense heat has a tendency to promote growth of the beard, making shaving a necessary daily event.

In some cases, style complicates the effect of the weather. Men wear fur for warmth; women apparently wear fur for other reasons. The same is true of straw hats. Definite limits have been set for men outside of which they are worn only at the risk

of ridicule, while women wear straw hats in mid-winter, if fashion demands.

The weather may have some unlooked-for effects. For instance, if the season has been particularly favorable to insect life or fungus diseases, the makers of insecticides and fungicides will prosper. An open winter restricts the sale of coal, food and clothing. On the other hand, it stimulates the sale of gasoline and tires.

Climatic and meteorological changes usually do not offer the same scope for constructive research as seasonal ups-and-downs, as they are less susceptible to prediction. In the case of retail stores, however, these changes demand careful study and prompt action, and can be taken advantage of by the shrewd merchandiser.

New and Second-hand. For most products, the fact that they are second-hand depreciates their value. For a few products, that same fact tends to enhance their value. In jewelry, for example, many stones acquire a history from their owners. Books, stamps, and curios often bring higher prices for the very fact of their being second-hand.

But for the majority of commodities, the second-hand market, when it exists, exercises a certain limiting influence upon the market for the new product. A certain percentage of purchasers buy the second-hand product in preference to the new one, either because they have not the price for the new product, or because they are satisfied with the service to be obtained from the second-hand product. This is particularly true in the automobile field, where many concerns have made serious attempts to cope with this resale problem. Some concerns take the second-hand cars, rebuild them, and sell them under guarantee.

Dealers in second-hand articles, automobiles, store fixtures, furniture, clothing, etc., are quite likely to be grouped together. The second-hand business is necessarily local, since the purchasing is local, and margin of profit is seldom large enough to allow of any expensive overhead, such as a chain of second-hand stores would entail. Second-hand stores are usually in the poorer quarters where the market is most likely to be, although the automobile second-hand dealer is an exception. So also is the second-hand piano dealer.

One of the important things under this head is to consider

the competition arising from the company's own product, as sold by second-hand dealers. Such competition cannot be coped with in quite the usual fashion, and calls for special study. Furthermore, in estimating numerically the market potentialities of a manufactured article, due deduction must be made for resale of the company's product.

Government Restrictions. Frequently the surveyor will find legal or government restrictions on the market. Limitations are placed on the shipment of certain shrubs, plants, etc., because of insect pests which might thus be disseminated through a wider territory.

In the literary field, there are copyright laws, and there are also laws which forbid the publication of certain types of literature. The Tauchnitz editions are famous examples of pirate publishing carried on on a large scale, because of the lack of copyright laws with Germany.

In the case of the egret feather, the opium and the liquor traffic, the market is entirely cut off by government action. In the majority of cases, however, the government's supervision tends merely to regulate and restrict, and not to prohibit.

The surveyor must also look to the regulations of foreign governments in regard to markets for different articles. For instance, playing cards are contraband for importation into France and tariff laws seriously restrict markets for commodities in many foreign countries.

The question of licenses for selling frequently arises. In most cases, it is fairly small and is usually imposed by the state or Federal government, though in some cases, the city exacts license fees, as in the case of the peddler. The Federal tax on tobacco, theatre tickets, and soft drinks failed to restrict the market to any appreciable extent.

Government restrictions and regulations are usually so inflexible in nature as to offer little inducement to the exponent of commercial research. He may, however, find it advisable to study prospective legislation, and its bearing on the market.

Prosperity and Depression. No one as yet has put into practice a means by which the periodic swings from prosperity to depression can be balanced. In accordance with their fluctuations, prices go up and down, and also, to some extent, markets.

The nature of the product in normal times will determine to some extent the length of the swing. The purchase of salt is not affected materially by hard times, nor any of those articles the continual consumption of which is necessary. Indeed, it has been said that the sale of matches increases in hard times because the men out of work smoke more. Again, a certain baking powder company found that its markets in hard times were best where conditions were worst.

The market for luxuries theoretically is one of those immediately affected during hard times. That is, when the purchasing power of the community is restricted, the buying of pianos, phonographs, and automobiles must wait for better times. This influence extends from the purchaser to the manufacturer of these luxuries. He curtails his production, and ceases buying raw materials. Then production at the mines and other sources falls off.

The truly successful manufacturer is the one who in hard times plans for good, and vice versa. In making a survey and presenting conclusions and recommendations, the investigator must remember that an analysis made on the crest of a prosperity wave, or at the bottom of a period of depression, is not normal. It is colored by the universal optimism or pessimism rife at the moment. Thus, he should always try to view the problem, not from the standpoint of yesterday, today, or tomorrow, but from that of the average period.

These limitations are some of those which may beset the path of the surveyor. They are by no means all. Every business has its own peculiar limitations which only become apparent on examination. Of whatever nature they are, they must be given proper weight.

The surveyor has now studied the product, the company, the customers, and the market. It remains for him to put into actual practice the facts he has gleaned up to this point; he must make an estimate of the company's potentialities.

Computing Potential Markets. The science of market analysis has not yet developed to the point where definite formulae can be laid down for the solution of marketing equations. So far, every case must be worked out individually and according to the surveyor's own lights. It is here that knowledge of hard-

headed, cold-blooded, old-fashioned business must make up for the sketchy and experimental nature of his analytical data. The most we can expect is that an examination of the results obtained in other researches, and of the methods there employed, will supply him with the necessary ideas for going ahead.

No matter how many special factors may complicate the specific mathematical problem of computation, in general there are certain things which enter in every equation. First, you must find out how many people want the product, and what proportion of them can afford it and might reasonably be expected to become purchasers. Then there is the question of the product and how often it must be renewed, that is, how long on the average will it last? It is the same old story of the market and the product. Then there are all the other limiting factors affecting the equation. No company can hope to get all the potential business on account of competition. Somebody else is going to obtain a substantial share of the business. All the other limitations must be considered separately, and a certain value attached to them. That value, in turn, must be deducted from the potential figures.

Obtaining and utilizing an index of markets is a short cut. It should be used for a check, rather than for anything else. If you send out a surveyor, a scout, into a territory and interview all or a given proportion of the whole as to how many want telephones, it is the direct method. Using the example previously cited, determining how many people want telephones by the amount of paint sold in that territory is only a short-cut. It has been found by experience that such an index is an easy method of estimating the market. It is an indirect method. When the number of houses wired is used as an index, it is much more direct, but even in this case, the value of that index should be verified by actual test and experiment.

Thus, in the ordinary method of computing a market, we must know the life of the product under average usage, who uses it, how many use it, who can afford to buy it, plus the specific limitations affecting the case in question. Multiplying the number obtained by the average price gives the value of the potential market.

It may be of help to cite some instances of how others have computed markets. The Crowell Publishing Company has

furnished some interesting information on the potential market for electric washing machines. They say: "In January, 1918, the Western Electric Company made a detailed survey, and estimated that 5,000,000 houses were wired with electricity at that time. In July, 1920, reports from 5,000 central stations established the fact that in the United States there were 6,291,160 dwellings electrically wired.

"In these homes live 33,008,500 persons, or 30.7 per cent. of the entire population of the country. In the territory covered by central stations, there are 62,023,400 persons residing, or 57.3 per cent. of the total population of the United States. Of this group, 55.8 per cent. live in electrically lighted houses. This suggests that the territory covered by central stations is an unusually rich field for the sale of electrical applicances. But, at the same time, the entire country holds the greatest possibility.

"It is estimated by the Westinghouse Electric and Manufacturing Company that, in 1920, 800,000 washing machines, valued at $100,000,000, were sold. In 1916, only 150,000 of these machines were sold. Even during 1919, only 475,000 machines were disposed of.

"In regard to the future, capable authorities estimate that 98 per cent. of the houses now being built in cities and towns are being wired for electricity. More attention is being paid by architects and contractors to the proper location and number of outlets for all classes of electrical appliances. In some cases a separate wiring system is built into the house that permits appliances to be connected to a separate meter."

The above is an excellent analysis of general conditions from which any particular company should be able readily to compute its market. It is worthy of note that in this computation, an index was used, and that as a check, the rate of growth in sales of washing machines over the past few years was given. There was no attempt to figure out just how much of the potential market could be turned into actual customers, since the obvious gap between actual production and possible sales was so large.

In estimating the cotton toweling market, the direct method was used. By a careful field survey, it was found that the average initial equipment of the one million families marrying each year was a half-dozen, making 3,000,000 dozen towels sold to this source. It was found that another half-dozen was used for upkeep

annually by each of the other 22,400,000 families in the United States, making a grand total of 12,200,000 dozen as the annual potential market for toweling of all kinds. From this figure, of course, had to be deducted linen and other toweling to get the figure for cotton toweling.

These examples are enough to show the surveyor the general way the problem of computation is attacked. It only remains to stress the great necessity for accuracy. The statements made must be indisputable. There must be authority for every figure. It is like a problem in algebra where all the steps are given by which the answer is reached.

General Conclusions. Apropos of market potentialities, it is common experience that they look brighter than they actually may prove to be. Before recommending an entry into new fields, the surveyor should make certain what obstacles and flaws may be encountered. Entering a new market is like preparing for a journey. You must decide where you are going, when you are going to start, how much it will cost you, what troubles and difficulties you are likely to encounter, and, above all, whether the trip is going to pay for itself.

Too much importance can be attached to quantitative appraisals of markets. They are well enough for rough estimates and bases for sales quotas, but it is useless to reckon them too far ahead, because by the time the company has reached a point where it can avail itself of the market revealed, conditions may have changed radically. Of course, there are many business men who wish everything in figures, and you must cater more or less to this demand, but you must remember that you cannot keep a ledger or a journal about things which have not yet come to pass. Computations as to the future are at best only approximations.

There are research men who are willing to make over-positive statements about potentialities, but men of this kind could learn much from the Delphic oracle, which always included a conditional clause or other loophole in making any forecast.

The study of limitations necessarily entails a consideration of how these limitations are to be obviated. At least, this is the mental process of the salesman and incidentally a great deal of valuable sales propaganda may be obtained through a study of limitations, restrictions, and other such negative factors. Doing away with a limitation invariably reveals a potentiality.

CHAPTER XVI

DISTRIBUTION

Outline

What is the trend of distribution in the industry?

(*a*) Is it towards simplification of functions and the elimination of middlemen?

(*b*) Is it towards multiplication of functions?

What effect do the following factors have upon the distributive organization?

(*a*) The product.

(1) Does the price of the product determine the method of distribution?

(2) Does the nature of the product, its perishability, or size determine the method of distribution?

(*b*) Service.

(1) Is the manufacturer or jobber in the better position to render the service required?

(*c*) Financing.

(1) Can the company afford direct distribution, and the doing away with middlemen?

(*d*) Volume of business.

(1) Can the company support the burden of national distribution?

(*e*) The market.

(1) How does size of customers' business influence the distribution?

(2) How does the location of the market affect the question?

(*a*) Does the fact that it is urban or rural affect the problem?

(*f*) Credits.

(1) Are customers good risks?

(2) Must goods be sold on terms? If so, can the company afford to finance time transactions?

What channels of distribution are best fitted to the company's problem?

(*a*) Are direct methods possible or best?

(1) Who are the customers?

(*a*) Are they large or small?

(*b*) Are they scattered or bunched?

(2) Must the product be sold direct because of its nature or qualities?

(*b*) Are indirect methods necessary or advisable?

(1) What are the present links of distribution?

(*a*) What economic function does each perform?

(2) What are the possible links of distribution? How would each fit into the company's problem?
- (*a*) The jobber.
- (*b*) The retailer.
- (*c*) The commission man.
- (*d*) The broker.
- (*e*) The manufacturer's agent.
- (*f*) The chain store.
- (*g*) The mail order house.
- (*h*) Other methods.

If the company does business through jobbers, what kind are they?
- (*a*) Are they local, sectional, or national?
- (*b*) How are they located?
- (*c*) Does the company sell through exclusive agencies or not?
- (*d*) What are the relations of the jobbers with the company?
- (*e*) How large stocks do they carry?
- (*f*) Do they carry and push other lines?

If the company uses dealers, what part do they play?
- (*a*) How thoroughly is the product distributed among retailers? What is the percentage of distribution among them?
  - (1) What kind of dealers carry the product?
  - (2) How does the product rank with competitors
    - (*a*) In volume of sales?
    - (*b*) In rate of distribution among retailers?
  - (3) How are dealers located geographically?
- (*b*) Has the company any direct personal relations with dealers?

CHAPTER XVI

DISTRIBUTION

How shall this product be brought to this market? Apparently there are almost as many existing methods and variations as there are businesses. Each company seems to have its own method of merchandising, differing in some details from that of its neighbor. Actually, however, the merchandising method must be suited to the product. Any material change in the product probably should mean a modification of merchandising methods. The mere change in the color of the product may make considerable difference in sales and sales methods. The color of the upholstery in a limousine, although of no importance in the eyes of the automotive engineer, has more than once been the determining factor in making a sale.

Merchandising is the machinery of publicity, sales, and distribution by which the product is brought to the market. It is the investigator's task to study possible methods of merchandising, and to compare the policy pursued by the company with methods of competitors. He should contrast these methods of distribution much as he would their respective products.

He ought, indeed, to look upon these channels of distribution as concrete, tangible, and real things. He ought to study them as he would study a piece of machinery. Is that machinery adequate, or is it obsolete? Is it large enough to take care of the problem, or would it be advisable to make it bigger? Contrariwise, is it already so large that possibly it might handle a bigger production than the factory is capable of? It is frequently possible to increase sales without enlarging the merchandising machinery.

Individual problems of this nature will come before the investigator. There is the case of a company manufacturing ice skates whose merchandising machinery is idle during a certain part of the year. This company has been faced with the problem of finding another product of similar nature to manufacture, the

sale of which could be carried on during the slack season and in that way keep the machinery turning over. Merchandising problems will often be found to be more individual than many other questions confronting the investigator. It will not be so much a matter of research, but the application to the specific problem of the research already done.

The Distributive Problem. Distribution is the machinery by which the seller conveys the merchandise to the purchaser. It may be simply handing an article over the counter, as in a bake shop, or it may be a complicated network of links in a distributing chain stretching around the world, as in the case of Kodaks or Waltham watches. By reason of the rapid increase in variety and volume of production since the beginning of the industrial era, the manufacturer found himself unable to keep in his own hands many of the distributive functions of storage, credits, and the divers problems of supply. These functions were assumed by intermediate agencies, wholesalers, jobbers, commission houses, brokers, etc. These middlemen relieve the manufacturer of attending to the time and place utilities, as they are ordinarily called, and in return for these services take a certain percentage of profit.

It has been estimated that there is ordinarily a 25 per cent. to 60 per cent. difference in price between the manufacturer and the consumer. There has been much agitation against this seemingly excessive margin, and many people have advocated doing away with middlemen. But, with a few exceptions, such as mail-order houses, it is generally agreed that the retailer is a necessary link in the chain of distribution, and that his functions cannot be assumed by the manufacturer with any material saving. The point which should be kept in mind throughout the study of distribution is that there are certain functions which must be performed and that, if the company cannot conveniently assume these functions, then the necessity for the middleman becomes, through a process of *reductio ad absurdum*, self-evident.

The brunt of the attack on the middleman has been borne by the jobber. Department stores, chain stores, coöperative buying associations, and mail-order houses are seeking continually to buy as directly as possible. The United Drug Company is an often cited example of a successful attempt to simplify distri-

bution. It consists, briefly, of a group of retailers who own the stock of a company manufacturing articles for their consumption. The great reason for its success is that it actually does simplify distributive functions. The drug trade, however, is ordinarily cited as an example of one in which the middleman has a stronghold, as there are 3,500 different articles on the shelves of even a small drug store, many of which are impossible to market direct, so rare is the call for them, and so small the druggist's average sale.

The investigator should remember that no distributive method can be permanent as long as changes are constantly being made in the product, in the method of making the product, and in the market itself. He should study each step in the present distributive processes of the company, asking himself each time: "Does this fulfil a sufficient economic need to justify its existence or maintenance?"

The chief factors which tend toward simplification of distribution are, first, the assumption of distributive functions by dealers and manufacturers; second, standardization of goods by brand and trade name; and third, development of production on such a scale that distribution can be economically handled by the manufacturer.

Determining Factors in Distribution. The principal factors which determine the methods of distribution are: (1) The product, (2) service, (3) financing, (4) volume of business done, (5) the market, and (6) credits.

(1) *The Product.* As in every other phase of the marketing problem, the nature of the product plays a leading part. For what form of distribution is this product fitted? It is evident that perishable goods must be marketed and distributed by different methods than those employed with products with indefinite keeping qualities. Paul H. Nystrom, in a bulletin of the Research Department of the International Magazine Company, gives the example of yeast, which is sold direct by the manufacturer through a highly specialized sales organization with refrigerating and delivery equipments, and "Yeast Foam," an article which keeps indefinitely and is sold to grocery jobbers everywhere. It is obvious that each of these products demands a different method of distribution.

The price of the product always is an important consideration. Low-cost articles, paradoxical as it may seem, usually cannot be sold direct. The margin of profit does not allow such an expensive method. But high-priced articles, with large margin of profit, allow the formation of a specially equipped sales force to market direct. A cash register, an adding machine, a sewing machine, or a tractor may be sold direct. Clothespins, soap, buttons, and other such utility articles must be marketed through jobbers.

Generally speaking, the more bulky the article, the more tendency exists to market it direct. The owner of a gravel pit sells direct. In fact, many building materials are ordinarily marketed in this way. The same applies in some measure to most kinds of machinery.

Thus it will be seen that the product itself is the primary factor in the problem of distribution. Here, as ever, the surveyor will find that his thorough understanding of the product will enable him to make up his mind as to the most logical of the various alternatives before him.

(2) *Service.* The service to the consumer depends partly on the product and partly on the policy of the company. Some products necessitate service, especially those of a technical nature, such as linotypes, lithographing machines, etc.

If the manufacturer makes goods in quantity, he is not ordinarily in a position to render individual service to consumers. This fact, if the product is one which needs service and attention, spare parts, etc., will unquestionably have considerable bearing on the form of distribution adopted.

The retailer has come to consider himself entitled to service from the manufacturer in helping him move his goods. In some cases the manufacturer, owing to the multiplicity of dealers, is not able to perform this function, in which case the jobber logically assumes it.

Every company in the long run has to give some service, but the amount which it is profitable for it to render differs. The maker of hooks and eyes cannot afford to give much service, while the seller of a piano can usually afford to keep it in tune for a year.

(3) *Financing.* Distribution, like any other business opera-

tion, must be financed. In fact, it is very expensive in many cases. Unless the company has a great deal of money at its disposal, it frequently cannot expect to take care of distribution and production as well. Many companies are oftentimes not in a position to enlarge their distributive functions as widely as might seem warranted by market possibilities. Others, for purely financial reasons, find it more expedient to retain antiquated methods of distribution.

(4) *Volume of Business.* The larger the volume of business the more able the company will be to distribute its products widely. The surveyor should note in every case the extent of the distributive organization at present, and the future possibilities. National distribution is the goal at which many companies aim. International distribution is the ultimate goal. A company, in order to attain either of these goals, must have large production facilities, since otherwise distribution on such a scale would be useless. Numerous instances will come to mind of companies which have attempted to build up a nation-wide trade before they were able to take care of it. The question here for the surveyor is: Where is the point at which the more extensive form of distribution becomes expedient?

(5) *The Market.* Large consumers ordinarily prefer to buy direct. Certain automobile manufacturers refuse to purchase their component parts through distributing concerns. Some companies have adopted a plan by which they sell direct to large consumers and large markets, while pursuing a policy of jobbing where demand is not so brisk or so concentrated. This plan does not always work satisfactorily, since both jobber and dealer are apt to consider themselves ill-treated. The markets for some products are so diffuse that it saves the company much money to have the jobber and wholesaler take on the function of probing out this scattered market and catering to it. Thus, rather than attempting to handle such sales direct, companies which control their own distribution east of the Mississippi often sell through jobbers in the Western territory. Those companies, on the other hand, which do distribute to Western territories from their own plant frequently have to maintain warehouses in that section. They could not compete if they did not provide some such reservoir of goods.

The investigator should study the geography of the company's distribution. He should find out which districts are largest users of the product, which states lead in consumption, whether the distribution is mainly urban, or whether a large percentage of it is rural. He should also notice the effect on distribution of districts where buying is light and districts where it is heavy, and the relative cost to the company in each instance. In this way, it is possible to determine the cost of distribution and make some sort of estimate as to the most economical methods for localities of varying importance.

(6) *Credits.* Securing payment for the goods sold is an important part of merchandising. When the middleman assumes the risk of collections, he is performing a very important service, and one for which many manufacturers feel they can afford to pay generously. Those companies whose customers are inherently poor risks usually find a jobber or wholesaler who will perform this function. For instance, as a class, shoe repairers are poor risks, and, although it would be easier to sell them machinery and goods direct, it has been found more expedient to act through a jobber. The latter takes on himself the task of looking up the credit of the individual concerns and of securing the payments.

There are many factors to consider in the payment. For example, it may be in advance without seeing the product, as in the case of tickets for a baseball game, or of articles sold through mail order houses. It may be on delivery, or it may be after use and trial. Every regular market investigation calls for a consideration of the credit system used. Possibly a much larger volume of business could be done if merchandise could be sold on terms. It is said that pianos would not command a fraction of their present sales volume if they were not generally sold on this instalment plan. Here, as always, the surveyor must consider possible results as weighted against their cost. Does it pay to merchandise on the instalment plan, or is the cost of carrying the accounts and loss through bad accounts so great as to offset the increase in volume of sales? It is not merely a question of whether a man will buy, but whether he can pay.

The Channels of Distribution. There are some companies that sell direct, and others that sell through jobbers and dealers, and there are still others which attempt to do both. Paul H.

Nystrom, in the "Economics of Retailing," says that out of every one hundred concerns doing national advertising, 17 sell to jobbers, 18 sell to retailers, 11 through agencies, 8 to consumers direct, 29 sell to both jobbers and retailers, 13 sell to retailers and through agencies, 4 sell to jobbers, retailers and through agencies, and 1 sells to jobbers, retailers and consumers. It is evident that there is no uniform practice, even among those companies with supposedly national distribution. It is, as said before, an individual company problem. No standards have yet been adopted. It is a case of every company for itself.

Whenever possible, however, a company should try to set up its own standards, and adhere to them. But, before adopting any one, it is well to consider all the various alternatives, and then to select by a process of elimination. This is the scientific way of approaching many such problems. To cite a specific illustration, we may refer to a recent survey of the market for tractors. According to this inquiry, there are three alternative methods of distribution to choose from:

(1) Tractors may be merchandised through the farm implement dealer. He was first in the field, has an intimate connection with farmers, and a thorough knowledge of their problems. The greatest volume has been sold through this channel, and it is the one often preferred.

(2) There is the automobile dealer who has sold hundreds of automobiles to farmers and supposedly can sell tractors to them as well. Automobile sales have usually been for cash and it sometimes is argued that this ability to sell for cash, transferred to tractors, is a greater asset than the intimate knowledge of farming conditions.

(3) It is argued in support of the third method, that of an individual tractor dealer, that the tractor business is too important to be an adjunct of either the automobile or implement business. It demands special study, and should be built from the ground up.

The above problem is a fair example of one which might confront the surveyor.

An actual solution of a specific distributing problem is that found by western fruit and nut growers. It consists of selling through associations. The Raisin Growers' Association has gone

so far as to announce its intention of marketing its product direct to the dealers, cutting out all jobbing operations. This is a radical step. It may be compared to that taken by the Oliver

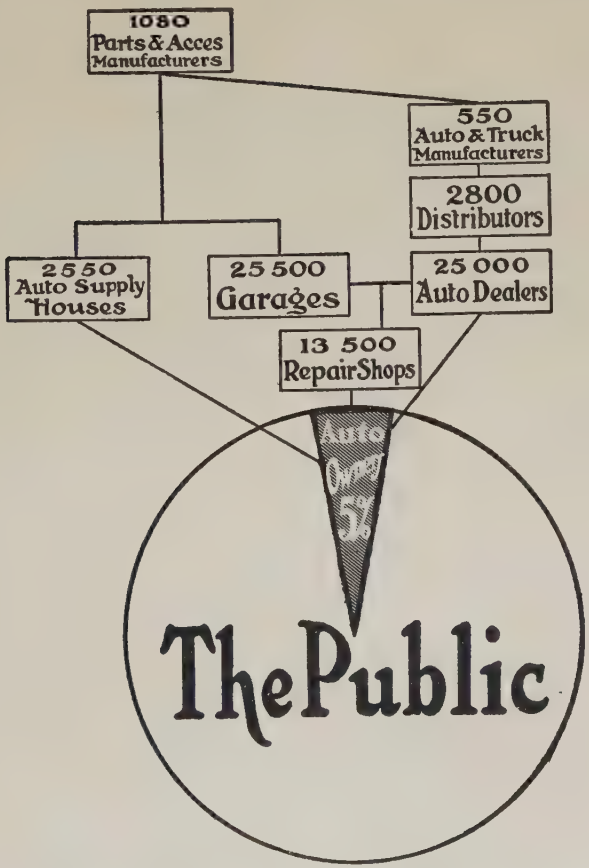


FIG. 44.—Analysis of Automobile Industry, Showing Channels of Distribution. (*The Quality Group.*)

Typewriter Company, when it announced its intention of halving its price and selling direct to consumers.

Some manufacturers have broken loose from tradition and created new distributing channels for their products. The original Pep-O-Mint Life Saver was said to be a failure, due to

a faulty container. The enterprising owner, having ascertained the difficulty and corrected it, found that candy jobbers would not stock it. He thereupon induced cigar stands, shoe shining parlors, restaurants, etc., to display it, on the theory that it was a product a man would not buy unless it came into his field of vision. This partially explained the failure of the candy stores with Life Savers, because a man did not want them badly enough to go into a store to get them. But when he saw them at the restaurant, the hotel, etc., it was very natural for him to buy. His purchase was casual and incidental.

A manufacturer of hair nets found the department stores unwilling to accept his nationally branded and advertised line. He thereupon made arrangements with a large drug chain to sell these hair nets, and the venture was very successful.

Chart No. 44 shows the ordinary channels of distribution in the automobile industry, with parts and accessory manufacturers selling both to automobile and truck manufacturers and to dealers and garages.

The surveyor will find that the sketching of such a chart, as applied to his industry, will amply repay the few minutes' trouble involved, since it will focus the entire distribution as it is or should be. Any exceptions of moment may well be entered on the chart.

Direct Distribution. Any sale made by the manufacturer to the consumer without passing the goods through the hands of a middleman is said to be merchandised direct.

The size of the company's customers is one index of the feasibility of direct distribution. If the larger part of the volume is marketed to large consumers, then it is likely that distribution may be simplified by eliminating the jobber. If the consumers are small and widely scattered, there is not so much opportunity for simplification. Large consumers prefer to buy direct of the company because it enables them to save money. Small buyers often prefer purchasing from the distributor.

Of course, if the users of the product are very large consumers, direct distribution should in many cases prove of mutual advantage. Manufacturers of soap powders, who normally sell through jobbers, usually make an exception of the rule, and sell direct to mills, prisons, and other large consumers.

In some businesses, selling direct is unavoidable. The baker

sells direct because he must be in close proximity to his market, and any delay in getting the product to it by complicated methods of distribution would involve deterioration in the product. Other businesses sell direct because they believe it is the best way, and they are willing to assume the risk.

There is no inherent virtue in any one method of distribution which makes it especially desirable. All depends on the company and the product. Are they fitted to direct distribution?

If sales are made direct from the seller to the purchaser, does this method correspond with general practice in the industry, or is it an exception? If an exception, what are the results as compared with ordinary methods? What is the general trend of distribution in the industry? Is it towards simplification or diversity, or does it remain stationary? These are some of the questions which the surveyor may use as a test.

Indirect Distribution. The ordinary chain of distribution is producer, wholesaler, retailer, and consumer. In some special businesses, there may be a selling agent between the producer and the wholesaler. He may be an importer, a broker, a commission agent, or other middleman. Each one of these exists because he fills a definite economic need in the industry. If this need is done away with, he disappears. Thus, distributive systems are constantly being changed. It is simply a case of commercial evolution—the survival of the fittest.

Before making any decision as to the method of distribution, the investigator should scrutinize the market outlets, and the volume of production going to each outlet, that is, to retailers, large consumers, manufacturers, foreign trade, etc. This may well be charted. In the case of food products, a very definite merchandising system of jobber, wholesaler, and retailer is found. This system has been complicated lately by the efforts of the chain stores to buy direct, an effort which has been accompanied with a considerable degree of success. By means of economies effected through direct purchasing, chain stores are enabled to offer goods to consumers at lower prices, this being true even in the case of staple goods. Chain stores are being established in lines other than groceries and foodstuffs. There are the five-and-ten-cent stores, for example. The manufacturer must decide whether he is going to market directly through these agencies,

or cling to the legitimate outlets sanctioned by custom and his competitors.

There are certain businesses which almost demand middlemen. For instance, indirect selling is practically imperative when there are 49,000 retailers in the country engaged in the drug business. A prominent manufacturer of soft drinks, on the other hand, has been much criticized for selling through a large chain store system while at the same time selling through jobbers yet this double policy seems to have met with success.

It may be a question of selling to a mail-order house. Legitimate dealers are quick to complain of this practice because underselling always hurts their market, although to what degree is hard to determine. This brings up the question of the degree of prejudice and resistance to be met with in any change of system. The investigator must take note of this because it is present and very real. A manufacturer who breaks away from the established custom of merchandising has only the success of his policy to stand upon. He cannot be sure of sympathy among his competitors or the erstwhile members of his merchandising chain.

The question of quick delivery is also very important in some cases. It may be even more important than price when a consumer wishes immediate delivery. It is very likely that in this case, a system of indirect distribution would be the only remedy. When the producer is large enough, it is sometimes feasible to establish branch warehouses throughout the country.

In a study of indirect distribution, the investigator will find that the representation of affairs as they actually exist, either graphically or in writing, will give him the best starting point upon which to base his opinions.

The Jobber. No study of indirect distribution can ignore the jobber. According to Charles Coolidge Parlin, there are three distinct jobber types:

(1) The local jobber who may live in an interior city and reach out for 50 or 60 miles, or who may live in a large city and merely cover that city, or finally who may live in New York and merely cover a portion of the city. He does ordinarily less than a million dollars' worth of business. He has no high-salaried employees. His delivery expenses are small. He is, in short, in the best position to sell manufacturer's brands and unbranded staples.

(2) The sectional jobber who is ordinarily located in a city of 100,000 or more. He frequently covers the state or several states and seeks to put out under his private brand everything possible.

(3) The national jobber who distributes a narrow line of specialties all over the country.

According to the Curtis survey on textiles, a jobber's territory is not a circle but rather a spider web, following the railroad lines, radiating away from the central market. Perhaps this tendency, it is pointed out, will disappear with the growth of the motor truck. Here the surveyor's map of distribution will be illuminating. How does the motor truck affect *his* distribution?

It has been a most fruitful cause of complaint that many jobbers push their own brands in preference to those of the manufacturers' brands, which they handle at the same time, in spite of those brands being nationally advertised. Many jobbers of automobile supplies and accessories handle competing products at the same time. The fact that they push one brand more than another is mainly dependent on the discounts allowed the jobber. Weighed against this is the nationally advertised line, which he is obliged to carry in order to satisfy his patrons.

If the company sells through jobbers, the important ones will be found to be listed. Statistics should be obtained if possible as to the size of jobbers' stocks, the attitude of the jobber towards the company, the turnover of the company's product in the jobbers' hands, the geographical distribution of jobbers, etc.

The opinion of the jobber should be obtained on the product, and his suggestions should be given careful consideration. Most jobbers are anxious to make evident the value of the service which they offer. They are supposed to do a larger business, to cover a greater territory, and to be in closer touch with the factors of demand than retailers. If the company makes use of jobbers, it should at least take advantage of the services which they have to offer. One of the most important of these services is information.

The Retailer. The majority of the products with which the investigator is likely to come in contact are sold through retailers. It is through the retailer that personal contact is maintained with the ultimate consumer. In the old days, the manufacturer did

his own retailing from the front of the establishment and manufactured in the rear. He knew all his customers. At present the manufacturer, in many cases, does not even know the retailers. Personal contact has been lost while efficiency and large scale operations have been gained.

It is upon this retailer, however, that the company depends to sell its merchandise. For this reason the surveyor should chart the geographical distribution of retailers and the relative density in certain sections, and then set out to account for it. He will find there are certain retailers who normally handle his class of goods exclusively, say, for instance, books. In large cities, books will be handled in stores devoted entirely to the sale of books. There will be other retailers who deal in other goods at the same time. The department stores usually have book departments, while many drug stores sell cheap reprints, etc. The manufacturer of books must take into consideration the logical retailer and the special retailer. He must also consider the possible retailer, that is, one who does not already handle this class of goods but who might do so. The drug store, for instance, is becoming exceedingly diversified in the variety of lines which it offers for sale. Many great business successes have been made by opening up pioneer channels of distribution.

Ordinarily, the retailer carries articles for which there is already a demand, or for which someone is trying to create a demand through advertising or other methods. There is much argument in favor of distributing a product to small dealers rather than to the large ones. There are more of them; their rate of turnover is often more rapid because of limited financial capacity, and it is perhaps easier to get coöperation from them. On the other hand, there is a certain amount of prestige from having the big stores carry the product.

Such problems may well be approached by means of a field survey. In field surveys, the retailer is often the logical point of first attack. By personal interview, a great many interesting facts may be learned, and valuable criticisms absorbed. And, since so great a part of the company's prosperity is dependent upon the retailers' attitude towards the company and its products, a field survey of this kind is advisable wherever the retailer is a logical link of the chain of distribution.

General Conclusions. A word of warning should be sounded here against too radical interference with distribution. The structure as it is now has been built up through long stages of evolution, and cannot be changed overnight. It is like the human body. It is a frail and imperfect organism; yet he who attempts to improve upon it can never hope, through the employment of sudden and radical methods, to succeed.

The surveyor started with a small, specific, confined study—the product. He then worked into the more general phases of the marketing problem. He is now coming back to an exceedingly definite, clear-cut, and concrete proposition. This, at least, is what the distribution methods should be, even if they are not.

A simple expedient for finding out whether distribution is being properly taken care of is to write out the exact methods by which it is handled at the present moment, being careful to include all exceptions to the general rule, the special discounts allowed to this jobber or that, and the various deviations and indirections which, like cobwebs, mark the outworn system. The mere reading of such a description is usually sufficient to show what its imperfections are. They become self-evident.

CHAPTER XVII

SALES AND ADVERTISING

Outline

How is the character of the sales force determined?

(*a*) What is the influence of price on the sales department?
  (1) The high-priced article requires a high-priced salesman.
  (2) Cheap article may or may not require expensive sales talent.

(*b*) How does the type of the product influence sales?
  (1) Does it require specially trained salesmen to demonstrate?
  (2) Are sales made entirely to women, or to men?

(*c*) Size and weight, what influence do they exert?
  (1) Can the product be demonstrated?

(*d*) How do keeping qualities affect the sales problem?
  (1) How fast must be the rate of turnover?
    (*a*) Is it determined by time, as in food products?
    (*b*) Is it governed by change in style, as in millinery?

What are the company's sales policies?

(*a*) In regard to the jobber?
  (1) What terms are given to jobbers?
  (2) What is the jobbers' percentage of profits on this product as compared with competing products?
  (3) How is the jobber protected in territory and price?

(*b*) In regard to the retailer?
  (1) What price is charged retailers?
  (2) Does the company sell through exclusive agencies?
  (3) Is there a discount for large orders?

What sales tests might be practicable?

How much of the company's business is repeat sales?

(*a*) Is it possible to get more sales with fewer customers?

What is the purpose of the company's advertising?

(*a*) Is it educational?
  (1) Does the company need to stimulate sales through educating the public as to the use of its product?

(*b*) Is it protective?

(1) Is it necessary to prevent consumers being weaned away by competitive advertising?

(*c*) Is it to develop new sales?

(1) Does it combat competitors' advertising?

What is the scope of the advertising appeal? Does it depend on

(*a*) The distributive facilities?
(*b*) The nature of the product?
(*c*) The class of the consumer?

How has the advertising been done?

(*a*) Through an agency?
(*b*) Independently?

Does the advertising appeal correspond with the motives for purchase as determined by the survey?

To whom should the advertising appeal be directed?

(*a*) To the ultimate consumer?
(*b*) To the jobber?
(*c*) To the retailer?
(*d*) To all three?

When shall the company advertise?

What should be the media of publicity?

(*a*) National papers and magazines?
(*b*) Trade papers?
(*c*) Local neswpapers?

What degree of coöperation exists between the functions of advertising and

(*a*) Sales?
(*b*) Production?
(*c*) Purchasing?

How are results of advertising campaigns checked up?

CHAPTER XVII

SALES AND ADVERTISING

We have studied the product, the people who use it, and the channels through which they are to receive it, but we have not as yet examined the ways of bringing it to their attention, that is, the sales and advertising.

Defects in most sales departments are due to failure to push the selling thoroughly, rather than to anything fundamentally wrong with the sales plan. On the other hand, the success of any business undertaking depends largely on the ability of this department. Does the present sales force measure up to the standard required? If not, wherein does it fail?

Mr. Parlin, of the Curtis Publishing Company, says sales success depends upon four factors: First, a good product; second, correct relations with distributive factors; third, an effective sales organization; and fourth, advertising to the ultimate consumer. All four of these factors are interdependent. Many companies realizing the importance of such coördination, have developed excellent sales departments; and it is likely that the survey will point to improved efficiency in the present plan rather than the formulating of a new sales plan.

Whatever decision the surveyor may reach on this score he must go carefully over the whole sales organization and policy. Some of the first questions he will have to ask are: How is the character of the sales force determined? What are the company's sales policies? Are there any practical sales problems to be met? What is the scope of the advertising appeal, etc.?

In studying the character of the sales force, there are a number of points to be considered, the most important of which are treated in the following sections.

1. *Price.* The influence of price on the sales department is twofold: The high-priced article nominally requires a high-priced salesman, while the cheap article may or may not require

an experienced salesman. High-priced goods are ordinarily sold in small quantities, with large margin of profit on each sale, while low-priced goods depend for their earnings on large turnover with small margin of profit per sale.

The surveyor's task in this connection is to ascertain whether the salesman's compensation is fitted to the product. Obviously, it would be poor policy to economise on salesmen in cases where the best is none too good. Contrariwise, it is equally poor policy to employ high-priced salesmen for selling which simply necessitates marking down the order.

2. *Type of Product.* The type of the product may have a very decided influence on the sales organization. Some products are of such a nature that they require a specialized sales department. The maker of a calculating machine, for example, should employ salesmen who are quick at figures in order to secure successful demonstrations. Another sales department may have to be qualified to appeal to an exceedingly limited class. A company publishing books for the blind has such a highly specialized sales problem.

In some lines of work, however, the necessity of having technically trained salesmen has been overdone. In marketing highly scientific apparatus, such as X-ray machines for medical use, only a scientist of many years' training would understand at all thoroughly the electrical phenomena involved. Hence, although the product itself is of a highly technical nature, the salesman may be almost altogether a commercial man.

The product may be of such a nature that sales are made by men to women, or vice versa. Such a sales personnel must have certain special qualifications, training, and address. The surveyor should decide in his own mind the precise requirements for a salesman in this line, and put these requirements into writing. They may assist the sales manager in rating his staff, and in helping him pick new salesmen.

3. *Size of Unit Order.* The price of the individual product is not always the criterion of whether the salesman should be high-priced. After the surveyor has ascertained from the sales department the amount of the average unit order, he will be in a better position to decide. The individual product may be very cheap, such as shoe nails, but large shoe factories place single

orders for them by the million. Such products are not sold individually. And, in articles of this nature, especially where competition is very keen, the salesman of ability is worthy of the high salary which he commands.

The above are but suggestions as to factors which may help determine the quality of the sales personnel. But the problem may be complicated by the peculiar nature of the product, particularly its adaptability for demonstration and its keeping qualities.

In regard to the first point—that of demonstrating the product—heavy articles may require an entirely different sales equipment from light products. Portability plays an important part. If the consumer has the article brought to him, and is able to see it in action he is more readily convinced than by much sales argument. This is particularly true in house-to-house selling. Although the first call may be solely to secure an opportunity to demonstrate, as in the case of vacuum cleaners, washing machines, and sewing machines, demonstration is relied on to make the actual sale.

In this connection, as a great many products are capable of demonstration in some way, the surveyer may be able to make valuable recommendations along this line.

The ability of the product to keep for a long time has also an important effect on the sales force. In the case of food products which deteriorate in a short time, selling methods must be adopted which are in keeping with the facts. Baking powder must not stay on the shelves too long or it will deteriorate. Perishability is by no means limited to food products. Photographic films and rubber goods are affected by time.

The salesman of a perishable commodity must not sell too much at a time. He must be able to weigh the absorptive power of the market against the product's ability to keep. Anything in which fashion plays a determining part must be kept moving or it will become unsaleable.

The investigator must be careful in his consideration of the selling force to study one more vital point—the personality of the salesman. Personal considerations enter so largely into selling that it is not uncommon to find salesmen drawing salaries or commissions 25 per cent. or 30 per cent. higher than is warranted, on

account of having potential abilities which are really never used in selling that article. The man who has the entrée to railroad presidents might be very cheap at $15,000 a year, although the actual salesmanship required after the interview was secured would be of a very ordinary type. But the personnel and its correlation with the product is only one angle of approach to the sales problem. In addition, we must reckon with the company's sales policy.

The Company's Sales Policy. Every company has, or should have, a definite sales policy in accordance with which the sales manager acts. This policy may be a relic of heredity transmitted by custom, it may be founded on the predilection of the executives, or it may be purely empirical—the results of experiments which have proved successful. In some cases, unfortunately rare, it is founded on accurate analysis of the product, the market, and the company's capacity.

What is the company's purpose in selling? Does it aspire to national or even international position? Is it contented with the local field? If it intends to expand, what are its plans? The answers to such questions will help the investigator to know what he must find out.

The sales program will extend from the producer himself down through the distributive mechanism to the retailer. At each point in this chain the market engineer should obtain the reaction of jobbers, retailers, and consumers on the particular portions of the sales policy which especially affect them.

The Jobber. In many companies the sales problem is vitally connected with jobbers. The highway to the ultimate consumer leads via the jobber. For this reason, the surveyor must pay careful heed to his position in the sales policies of the company. What terms does the company give jobbers? How does their percentage of profit compare with the percentage of profit obtained from competing articles? What means are taken for protecting the jobber, both as to his territory and his prices? How are goods delivered to jobbers? How is the company regarded among the jobbers? All these questions and more must be answered before the surveyor will be in a position to judge accurately and impartially the existing state of affairs.

He must remember, in studying jobbers, that it is imperative for the company to have their goodwill. They often have it in their power to make or mar the success of a product in a certain district, and this feeling of goodwill is largely dependent on their treatment by the company.

A great deal of such goodwill comes from accurate understanding between manufacturer and jobber of where each one stands. There should be no ambiguity in regard to the share of each in sales activity.

"It is extremely important," says Arthur Cobb, Jr., "to have a correct mechanical structure for the manufacturer's sales policy, as distinguished from the personnel or human element of it." Nowhere does this apply more than to the question of jobbers. Looseness of organization which would not be tolerated in an up-to-date factory is rife in distribution fields. It is the usual practice of publishers, for instance, to sell books to retail booksellers on a sliding scale of discounts ranging from 25 per cent. on single copies up to 40 per cent. or more on 100 copies of one title. Only a few publishers have a separate discount for the jobber. Hence the only way a bona fide jobber can make a living in the business is by buying in large quantities at the top discount and re-selling in small quantities at or above the publishers' own discounts for these quantities. As the dealer can get just as good a price as the jobber when he buys in the same quantities, there is a strong tendency to buy direct, and the larger a dealer's business is, the stronger the tendency becomes.

Such a system may be well enough, since it "fills the bill," but what will happen when a more logical plan is put into effect? It is questions such as these which the surveyor must face. He must ferret out the faults of present systems to lay sounder foundations for those to come.

The Retailer. Equal or greater in importance are the functions of the retailers and their connection with the company. It is true that many manufacturers never come in direct contact with retailers, but it is also true that many companies deal directly with retailers. One of the first questions to ask is: "How thoroughly has the company canvassed the ground for retailers?" It often proves to be the case that only the "high spots" have been touched, either through lack of energy on the part of the

salesman, or negligence on the part of the sales department itself in failing to take advantage of its opportunities.

The question of the price charged to the retailer is often the cause of dissension. If the retailer buys direct, does he get the same price as the jobber, or does he have to pay at the same rate as though he had purchased from the jobber? Such questions are of common occurrence. It is only through a study of the facts themselves that the correct answer may be given.

Does the company grant exclusive agencies, or does it sell to whatever retailer wishes to stock the goods? Again it is the policy of the company which should be investigated. Does the company sell to large consumers at lower cost, and what has been the effect of that policy? The surveyor will find help on these heads from the numerous specialized books on sales problems.

The surveyor will be likely to find in the majority of companies that the sales policy is dictated by expediency. But, it is also a fact that scientific analysis of sales problems and methods is increasing with the analysis of markets.

Peculiar Sales Methods. Some companies have very peculiar problems to meet which necessitate specialized sales methods. For instance, fire hydrants are chiefly merchandised to municipalities, and require an unusual kind of sales machinery. The sale of crude rubber is largely to the presidents of the rubber companies, who, it has been said, are the "highest grade purchasing agents in the world." There is also the case of the mechanical salesman, the penny-in-the-slot machine, which exemplifies an out-of-the-ordinary method of merchandising.

In any event, the market and the product will determine the requirements of the sales organization, and if it has not been built to meet them, or if it has grown beyond them, the difficulties should be clear.

A factor which may be negligible in one business may control another. Sometimes the important influences are hidden, and it is the research man's task to unearth them. A survey made to determine the market for cereals showed that corn breakfast foods were in the ascendancy. Investigation showed that their growing popularity was not due to their superior flavor or nutritive properties, but mainly because they were the quickest to

prepare. The younger generation kept later hours than its forebears, and was in a greater hurry. It is such matters as these, obvious enough when once described, which make or break whole industries.

The Value of Repeat Sales. The sales problem usually has two aspects, that of seeking out and selling to new and original markets, and that of capturing repeat sales. If a company manufactures a product that lasts a lifetime, or perhaps two lifetimes, obviously its sales problem is much narrower than that of the manufacturer of automobile tires. As now manufactured, these wear out after a few thousand miles' usage. If some substance were invented which would, without an increase of price, stand up twice as long as present materials, giving 20,000 miles of service instead of 10,000, the tire industry would be revolutionized, as the repeat sales would be cut in two.

The surveyor should endeavor to find out what percentage of his company's business is repeat and what original. Repeat sales might not be so large as they should be because the company was spending too much energy in looking up new fields for sales exploitation. The point is that it is often better to keep one customer sold than to get ten new ones on an original sale and then lose them all. Mr. Ray Giles points to the case of the regular razor company which sold a million razors in a year but every year found it necessary to get new customers, while the manufacturer of a safety razor by selling a million razors, made himself a repeat market of one million purchasers of razor blades.

Repeat sales may be pushed in several ways—through careful cultivation of goodwill, identification of goods through trademark or brand name, advertising specifically directed towards the actual user, etc.

The surveyor will perceive that the problem of repeat sales narrows down to the possibility of making more sales to fewer customers. This may be impossible, as in the case of furniture, pianos, etc., where the original market is the only one worthy of much sales effort. But where repeat sales should account for a large part of the business, the surveyor should ascertain to what degree it is present.

Advertising. Market surveys are ordinarily made to extend or reinforce old or existing sales fields, to find new fields for the

product, to determine the possibilities for selling new products, to change the method for bringing the product to the market, or in some way to alter or modify the present method of marketing goods.

If it is decided to alter the marketing system, it becomes desirable and even necessary to apprise both customers and public of these plans. Accordingly, a market survey of this nature leads to publicity. If it is decided to extend the field for the old product, it is a matter of advertising, or greater sales effort of one kind or another. If it is a matter of new and undeveloped fields, the accepted manner of opening up new fields is by advertising. If it is a new and yet unmarketed product, people must be told about it, its advantages, what it costs, and where it may be obtained. If methods of distribution are going to be changed that not only means opening up the new channels, but also making known what these channels are and how they are going to operate.

Purpose of Advertising. The purpose of advertising ordinarily is to promote the welfare of the company by stimulating original or repeat sales. When the surveyor approaches this problem of advertising, he should determine whether the company's publicity in the past has been directed along the channels which the character of the product and the market would seem to suggest as best. In other words, what has been the advertising policy and what were the reasons for this policy?

Advertising is ordinarily conducted to educate the public to the advantages of a product, to protect a market already acquired from competitors, or to develop new sales for a new product. These are the principal reasons, although there may be others. The purpose of the advertising to a great extent determines its subject matter and the appeal. Therefore, it is important for the surveyor to analyze the publicity motives.

1. *Educational Advertising.* In this form of publicity, the aim is to educate the public in the use of the product, so that sales will naturally follow. As such advertising is likely to benefit competitors as well, the customary method now is to form an association of manufacturers which conducts the advertising campaign jointly. The British Trawlers' Federation has attempted to teach the English public how to cook and serve fish. A similar campaign has been conducted in the United States. After all,

the value of advertising is in the results obtained for the company, and this must be the surveyor's criterion. He is not expected to be an expert on advertising problems. His function is merely to point out the relation between facts and results upon which the advertising campaign is built.

2. *Protective Advertising.* After the public has become thoroughly convinced of the merits of a product, and habituated to its use, there is still the necessity for continuing the advertising appeal. Continuity and iteration are by-words of modern advertising.

Protective advertising prevents consumers from being weaned away by competitive advertising. There are, of course, other sorts of protective advertising. The Illinois Central Railroad, for example, has advertised in newspapers to reduce the number of accidents at grade crossings, and thereby to protect itself against a source of dangerous financial losses.

Here, as elsewhere, the surveyor must not merely accept the company's advertising at its face value, but must inquire into its fundamentals. Why are we advertising? What is the underlying purpose of our campaign? What is the immediate purpose of any given advertisement? Do we expect to create a powerful but temporary effect, or one which is milder but more permanent? If we are advertising to protect ourselves against competitors, what is their method of publicity, and how does it compare with ours? The surveyor will find it helpful to propound such questions as these, to obtain answers, and to put his findings into writing.

He will be quite sure to find himself in close contact with the advertising department, and should be one of its ablest advisers. Although probably not an expert on the technique of advertising, yet he should be competent to lay all the foundations upon which advertising is built. This is often, in fact, the market engineer's first function. He should keep in mind that the survey is not built upon the advertising, but that the advertising is built upon the survey.

3. *Developing New Sales.* Protective advertising may be looked upon as the defense of old sales fields. But in order to develop new sales, offensive tactics must be used. The surveyor will find that the policy of such a campaign will be in some measure determined by the amount of competition already in the field.

If this is considerable, the advertising will probably be somewhat argumentative in nature, whereas if the territory is virgin, the educational element will be more prominent.

Some advertising may combine several motives. A new advertising campaign will test the surveyor's resourcefulness. He will find it desirable to review all his various findings in the light of publicity requirements. The product, the company, customers, competition—all the various factors—will play a part in molding the new campaign.

Character and Scope of Advertising. Once the surveyor has found out why the company is advertising, it is much easier for him to study the character and scope of the advertising. He should ascertain through what media the company has been approaching the market, and to what public these media appeal. He must find out whether the appeal has been local or sectional, national or international, and whether directed at jobbers, retailers, or consumers. Has advertising been conducted through an agency or through the company's own advertising department?

Advertising agencies, originally space brokers, have developed into a very thorough and effective service. They are both general and special, that is, some agencies deal in all sorts of products, and some confine themselves to special industries.

The scope of the advertising, considered territorially, should depend first on the ability of the company to distribute. National advertising is rarely feasible for any product not capable of national distribution. The surveyor will already have data on this subject at hand. It will also depend on the company's ability to produce and take care of orders, on what credit risks it is desireable to run, etc. It is a question of suiting the company's facilities and potentialities to the specific problem, in this instance, advertising.

The Advertising Appeal. Most advertising campaigns have some dominant note which is stressed. This may be the service rendered by the product, it may be its high quality, it may be the cleanliness with which it is manufactured, it may be its beauty, or it may be anything which to the point of view of the advertising agency or department appears the paramount consideration in the eyes of the purchasing public.

Now, it is too often the case that this stressed motive of pur-

chase is not ascertained by scientific methods. There seems to be no other accurate way of determining it other than by a market analysis. An appeal gone wrong may mean the loss of thousands of dollars in advertising wasted. What the public likes about that product, not what a few individuals like about it, is the thing to find out.

National advertising has fallen into disrepute in some quarters because of the failure of companies that, for one reason or another, did not succeed in reaching the public. It may have been lack of distributive facilities or it may simply have been a failure to understand properly the motives for purchase. There must be some connection between these motives and the advertising campaign.

The appeal must be made to the right sector of the public. According to the investigation made by the Nast publications of the market for electrical appliances, the point is stressed that it is better to advertise in a class magazine reaching 95 per cent. of the homes wired than in the average mass magazine which reaches only about 25 per cent. of live prospects, since it is plain that electrical appliances can be sold only to persons whose homes are wired. See table, Fig. 45.

Although this survey was made with the express purpose of showing how quality magazines reached a certain class, yet it is valuable to the surveyor since it demonstrates clearly that there is such a thing as scientific choosing of the media which reach the logical market for the product.

But advertising appeals are constantly changing, because human motives themselves change. Ten years ago the accepted way to sell a washing machine was to force it upon a few families in the community, and to let them advertise it by word of mouth. Advertising then was educational. It has now changed its appeal to a stressing of the points of excellence of the different makes. It is not so much a question of convincing the average individual that he needs a washing machine as of convincing him he wants a particular make of washing machine.

The surveyor should be able to tell with little difficulty what the logical advertising appeal should be. He has obtained all the necessary facts from his study of the product, the methods of distribution, and the market. He should be able to pass judg-

ment upon present advertising, and say wherein it is lacking in conformance to the facts as disclosed in the investigation.

Advertising Policies. To whom is the company going to advertise? Where distribution is direct, naturally it will be to the ultimate consumer. But even in the case of indirect distribution, companies frequently advertise to the consumer in the belief that if he is convinced of the value of this product, and wishes to purchase it, then the dealer and jobber will fall into line without difficulty. It is claimed that the average jobber and retailer prefer to handle such a nationally advertised product because their selling problem is made easier. But this is by no means universal. The margin of profit from nationally advertised goods may be too small to suit him. The surveyor must find out the facts which prevail in the specific instance.

Advertising to the retailer has proved productive of results in many cases. The same applies to the jobber, although, as a general rule, the jobber will handle only what he thinks he can sell without too much effort.

The surveyor will do well to analyze the advertising of competitors, ascertain to whom their advertising is directed, and the nature of its appeal. He will generally find a direct connection between the class of advertising and the prosperity of the company in the industry. That is, the most successful companies will follow more or less along the same advertising track. In some industries, the firms that do not advertise at all may be most successful. But the surveyor cannot fail to get interesting impressions from any study of what advertising competitors are doing.

When to advertise is another important question. In industries where buying is seasonal or periodical, there has been great discussion as to whether advertising should be continuous or merely done previous to the buying season. This brings us to the question of checking up advertising results. In some cases, such as educational advertising, it is undeniably difficult to trace direct results, but there are many checking systems in use which take care of the ordinary case.

The Need for Coöperation. The mistakes of advertising show more clearly than anything else how great a need for coöperation exists between the various departments. There have been many

ANALYSIS OF DWELLINGS WIRED

Together with Results of Investigation of 8358 VOGUE, VANITY

CITIES	Population Served	Size Family	Families in Territory Covered	Homes Wired	% Wired	VOGUE HOMES, %			VANITY FAIR HOMES, %		
						Subs.	Wired	Wired	Subs	Wired	Wired
CONNECTICUT											
Greenwich	20,000	4.5	4,444	3,217	72	43	41	**95**	32	30	**94**
New Haven	162,519	4.5	36,116	15,000	41	89	87	**98**	103	96	**93**
Stamford	45,000	4.5	10,000	4,500	45	43	41	**95**	25	22	**88**
DIST. COLUMBIA											
Washington	437,571	4.0	109,392	25,000	23	186	164	**88**	206	176	**85**
ILLINOIS											
Evanston	37,215	4.0	9,304	7,078	76	162	162	**100**	80	80	**100**
Glencoe	3,381	4.0	845	747	88	24	24	**100**	14	14	**100**
Highland Park	6,167	4.0	1,542	1,363	88	49	48	**98**	11	11	**100**
Lake Forest	4,255	4.0	1,064	790	74	49	49	**100**	13	13	**100**
Oak Park	50,000	4.0	12,500	11,096	88	65	64	**99**	33	33	**100**
Willmette	8,314	4.0	2,079	1,790	86	25	25	**100**	10	10	**100**
MASSACHUSETTS											
Boston	1,250,000	4.5	277,555	71,806	26	65	64	**98**	63	60	**95**
Brookline						158	148	**93**	139	125	**90**
Back Bay						109	105	**96**	117	110	**94**
Newton						20	20	**100**	8	8	**100**
Springfield	133,000	4.5	30,000	17,000	56	77	76	**99**	79	78	**99**
NEW YORK											
Buffalo	600,000	5.0	120,000	60,000	50	175	161	**92**	106	103	**97**
Rochester	295,750	4.5	65,550	25,000	38	194	194	**100**	112	110	**98**
Utica	105,000	4.5	23,333	14,383	62	63	61	**97**	46	44	**96**
Albany	115,000	4.5	25,555	8,247	32	88	72	**82**	58	49	**85**
Troy	82,823	4.5	18,405	3,500	19	49	41	**84**	42	32	**76**
Mt. Vernon	47,000	4.5	10,444	4,600	44	36	36	**100**	40	39	**98**
Pelham	†3,000	...	.....	.....	..	23	23	**100**	19	19	**100**
Larchmont	†1,500	...	.....	.....	..	10	10	**100**	12	12	**100**
New Rochelle	45,000	4.5	10,000	4,500	45	58	56	**97**	49	46	**94**
OHIO											
Cleveland	1,200,000	4.5	266,666	152,000	57	167	158	**95**	169	160	**95**
Columbus	240,000	4.0	60,000	29,000	48	128	126	**98**	135	132	**98**
NEW JERSEY											
Newark	439,681	6.0	73,261	23,330	31	95	88	**93**	81	66	**81**
New Brunswick	50,000	4.5	11,111	4,700	42	13	12	**95**	15	15	**100**
Red Bank	16,303	4.5	3,620	2,287	61	13	13	**100**	8	8	**100**
Plainfield	37,084	4.0	9,271	4,800	51	54	50	**93**	31	31	**100**
Elizabeth	116,476	4.5	25,865	7,798	30	14	14	**100**	27	26	**96**
Oranges	94,918	4.5	20,970	9,275	44	150	139	**93**	90	84	**93**
Paterson	135,866	4.5	30,190	8,000	27	48	48	**100**	23	23	**100**
PENNSYLVANIA											
Philadelphia	1,823,000	4.5	405,111	110,000	27	152	132	**87**	164	163	**99**
Pittsburgh	1,500,000	5.0	300,000	95,000	32	191	187	**98**	187	184	**98**
RHODE ISLAND											
Providence	300,000	4.5	66,666	30,000	45	147	139	**95**	120	109	**92**
WISCONSIN											
Madison	51,000	4.5	11,333	7,651	68	43	43	**100**	39	39	**100**
Totals	9,456,823	...	2,052,192	763,458	**37**	3075	2921	**95**	2506	2360	**94**

* In the following cities only a part of the subscribers were checked:
Washington in alphabetical order through letter P.
Boston all in postal station M.
Back Bay in alphabetical order through letter R.
† Exact population not available.

FIG. 45.

IN 37 CITIES OF THE UNITED STATES

FAIR and HOUSE AND GARDEN Homes * in these Cities

HOME GARDEN HOMES, %			TOTAL VOGUE, VANITY FAIR AND HOME GARDEN HOMES, %			Light Rate	Cooking and Heating Rates
Subs.	Wired	Wired	Subs.	Wired	Wired		
47	44	**94**	122	115	**94**	15¢	10–7¢ according to consumption
80	76	**95**	272	259	**95**	7¢	100 KW. at 7¢, next 400 at 5¢, next 1000 at 4¢
40	37	**93**	108	100	**93**	12¢	10 and 7¢ according to consumption
200	173	**87**	592	513	**87**	10¢	3¢
137	137	**100**	379	379	**100**		
37	37	**100**	75	75	**100**		
28	27	**96**	88	86	**97**	10¢	3¢
11	11	**100**	73	73	**100**		
47	45	**96**	145	142	**98**		
35	35	**100**	70	70	**100**		
57	55	**96**	185	179	**97**		
116	111	**96**	413	384	**93**	10¢	9¢ for 23 to 103 KW.
87	84	**96**	313	299	**96**		6¢ for 103 KW. and up.
32	32	**100**	60	60	**100**		
60	56	**93**	216	210	**97**	10¢	6¢ 1½¢ for 180 K.W up.
102	97	**95**	383	361	**95**	8¢	8¢ for 60 KW., 4¢ for next 120 KW.
157	156	**99**	463	460	**99**	8¢	
60	59	**98**	169	164	**97**	11¢ for 60 KW.	Sep. met. 7.5¢ for 50 KW., 6.5¢ for 50KW. and up
65	58	**89**	211	179	**85**	8¢	Sliding scale down. 3¢ over 310 KW.
49	39	**80**	140	112	**80**	9¢	5¢
56	55	**98**	132	130	**98**	....	
37	37	**100**	79	79	**100**		1st 800 KW. at 12¢ per KW.
37	37	**100**	59	59	**100**	....	Decrease of 1¢ on each additional 50 KW.
95	95	**100**	202	197	**98**		
142	134	**94**	478	452	**95**	5 and 3¢	Minimum rate 3¢
137	133	**97**	400	391	**98**	7¢	7¢
96	84	**88**	272	238	**88**		
13	12	**92**	41	39	**95**		
17	15	**88**	38	36	**95**		
63	61	**97**	148	142	**96**	10¢	10¢
45	40	**89**	86	80	**93**		
143	135	**95**	383	358	**93**		
57	57	**100**	128	128	**100**		
82	75	**91**	398	370	**90**	9¢	5¢
154	149	**97**	532	520	**98**	9¢	3¢
115	114	**99**	382	362	**95**	10¢	$2.00 flat +1½¢ per KW.
41	39	**95**	123	121	**98**	10¢	10¢
2777	2641	**95**	8358	7922	**95**		

Buffalo in alphabetical order through letter K.
Cleveland in alphabetical order through Station E.
Philadelphia in alphabetical order through Station C.
Pittsburgh in alphabetical order through Station East Liberty.

FIG. 45.

recorded instances of advertising a product which never appeared on the market. Just prior to the war, a well-known manufacturer of automobile accessories decided to put on the market a new phonograph and advertised all over the country to this effect. These were never made or sold. Apparently this money was wasted. A more recent example has been in the automobile industry, several members of which announced cars. through extensive advertising, which never appeared.

It would normally be supposed that the highest degree of coöperation existed between the sales and advertising department, yet recently a page advertisement of an article of apparel appeared in the New York Theatre programmes, but not a single article of the kind advertised was to be had in the city. Another mistake of the same kind was evident when inquiry at six large department stores in one of the largest cities of the East failed to disclose any hosiery made by a company doing extensive advertising in national media. These two instances show how important coördination is in advertising. All efforts expended in rousing sales interest fail if the company is not prepared to manufacture and distribute to meet the demand.

General Conclusions. The task of the surveyor in sales and advertising is largely one of correlation. He will seldom find a radical change necessary. But it will often be found that departments are working at cross purposes, each doing its best for success, but each failing to take into consideration the efforts of the other.

Advertising is ordinarily a matter of company policy. There are strong prejudices to encounter and overcome. In approaching this problem, the surveyor should be extremely careful to back up all statements by facts and authority so incontestable that there can be no question as to their validity.

CHAPTER XVIII

FOREIGN MARKETS

Outline

Why is analysis of foreign markets important?

(*a*) Different races.
(*b*) Different languages.
(*c*) Different customs.
(*d*) Different methods of merchandising, etc.

Wherein lies the importance of preliminary analysis?

(*a*) The necessity of a selection from possible markets.
(*b*) The desirability of careful planning.
(*c*) What determines the choice of territory?
  (1) Is it the nature of the product?
  (2) Is it existing foreign conditions?

What is the problem? Does it depend on whether

(*a*) The company has already established foreign connections?
(*b*) The company has never entered the field?

Must the product be modified for foreign markets?

(*a*) Is there anything in the customs, language, or buying habits of the country which would preclude its sales in present form?
(*b*) Should the foreign public be educated to the product or should the product be changed?
(*c*) Will details, such as color, have to be changed to suit foreign taste?
(*d*) Are there different uses for the product abroad?
(*e*) Does the measure or size of the product conform to foreign standards?
(*f*) Must product be packed in special way?

How is the company concerned?

(*a*) Does location of the company make it easier or harder for its foreign trade?
(*b*) Can the company finance foreign trade?
(*c*) Can the company manufacture a product to suit the foreign market?

What conditions exist in the industry abroad?

(*a*) Has industry prospered?
(*b*) Is there a tendency towards concentration?

What are the bases of competition abroad?

(*a*) Are there different bases in different countries?
(*b*) Are new products at a disadvantage?
(*c*) Is there danger of the product's being superseded?

How shall customers be obtained?

(*a*) What are credit problems?

Who is going to buy the product?

(*a*) Does class play a large part?
(*b*) Is there a great deal of illiteracy? etc.

What is the nature of the market?

(*a*) What is the actual purchasing population?
(*b*) How hard is the market of access?

What are the potentialities and limitations of the foreign market?

How shall the sales problem be solved?

(*a*) Shall the company sell directly?
(*b*) Shall it sell indirectly?
  (1) Through exporters?
  (2) Through manufacturers' agents?
  (3) Through commission men?
  (4) Through other channels?
(*c*) How shall the problem of samples for salesmen be met?
(*d*) Must the carton be made up specially?

How are publicity methods different from those in use in this country?

How shall data be secured?

(*a*) What are the bibliographical sources of information?
  (1) Statistical.
  (2) Geographical.
  (3) Directories.
  (4) Annuals.
  (5) Customs tariffs.
  (6) Information on file at Bureau of Foreign and Domestic Commerce.
(*b*) What are the requisites of the foreign questionnaire?
  (1) In language of country of destination.
  (2) Explicit, complete, and courteous.
  (3) Sufficient postage.

(*c*) To whom should foreign questionnaires be sent?
(1) American consuls.
(2) Exporters.
(3) Dealers.
(4) Competitors abroad.
(5) American consuls in foreign countries.
(6) Foreign consuls and trade information bureaus in this country.
(7) American Chambers of Commerce abroad.
(8) Foreign trade experts.

CHAPTER XVIII

FOREIGN MARKETS

Business is no longer contained within city, state, or national limits. The industries of the United States have outgrown home consumption; they are dependent for prosperity on foreign demand. We have joined England and Germany among the exporting, rather than the importing nations. The time when home consumption would take care of the great bulk of our production is past. It is said that the shoe factories of the country, if operated at full capacity for six months, would supply the demand in this country for one year. The same is rapidly becoming applicable to the automobile industry, and to others.

Thus, foreign markets, their scope, their nature, their demands, the restrictions upon them, and the competition to be encountered, are matters of prime importance to a great many manufacturers.

Foreign markets differ from ours in many respects, as many would-be exporters have found to their cost. Failure to understand markets abroad is attended with even more disastrous results than a similar failure to understand domestic markets would entail. Not only are the people different, the customs different, and in many cases the language, but there are different standards of living, different tastes, different methods of merchandising, etc.

It is needless to emphasize the importance of a foreign market survey for those intending to enter foreign fields. No amount of hard-headed business sense will make up for this deficiency. If it is difficult to understand markets at home, it is much more difficult to understand them at a distance of thousands of miles. An analysis of the foreign market costs more, takes longer, and is more uncertain in results than any domestic survey. And yet without one, it would be foolhardy to enter the foreign field.

How a Foreign Market Survey is Made. In general, the foreign market analysis follows the plan outlined for the domestic survey. The problems are usually more difficult to solve, owing to the necessity of relying on the evidence of others rather than on personal first-hand investigation.

The preliminary analysis becomes of greater importance in the foreign survey than in the domestic. It is a question of making a selection of the fields to investigate. Few companies will have capital or time to spend in analyzing the whole world. The aim is to pick, out of the possible markets, those which show signs of being potentially the most profitable.

The product must be studied from the foreign viewpoint, both as to use and limitations, and to appearance, packing, deterioration, etc. There is no use trying to sell foreigners what they do not want. Educational publicity is, as a rule, too expensive. It is much simpler to give them what they are used to and familiar with.

The company must be viewed carefully, taking into consideration its location and the freight rates to different countries, its facilities for production, etc. The industry in general as it is developed abroad is important. Competitors, including both companies in the same line of business which are exporting abroad, and foreign companies doing business there, must be carefully studied.

The company may already have connections abroad and customers with whom it has done business, either regularly or intermittently. If this is not the case, then the investigator must consult foreign trade directories, find the names of possible customers, get in touch with them, and sound out the situation for himself.

The foreign market is very different from the domestic. It is not one market. It is a vast variety of markets. Every country presents its own problems. There are racial and religious prejudices to consider, there are seasonal requirements different for each country, there are rules of procedure to follow out. Naturally, no company would attempt to enter every foreign field simultaneously; yet the surveyor may be called upon to make a reconnaissance of the world-field, in order to determine the logical country in which to begin sales and operations.

Merchandising methods are quite distinct abroad. The credit problem is enhanced. The processes of distribution are involved. Sales present many difficulties. Publicity is conducted, even in England, differently from ours. Language presents many barriers.

There are certain routine sources of obtaining data, and there are individual ones for each country. Fortunately, information is not usually difficult to obtain, but it takes a long time. Much more time must be allowed for a thorough foreign market survey than for a domestic one.

The Preliminary Investigation. Preliminary analysis is essential in foreign surveys. There are so many different countries which might be investigated, and so many different things to study in each country, that the function of the preliminary work is to weed out the most desirable opportunities. Ordinarily, the nature of the product determines the foreign, just as it does the domestic market. Actually, the choice of territory depends on the nature of the product and the existing foreign conditions. As one of the government pamphlets points out, it is not to be expected that flannel underwear can be sold in Egypt or heating stoves in Java, although both have been tried. Thus, the nature of the product will eliminate a great many countries at the outset. The existing conditions which might preclude successful trading are many and diverse. For example, there would ordinarily be no object or profit in attempting to enter fields already preëmpted by other companies, although this is not a hard-and-fast rule.

It is possible to avoid, by preliminary work, any unnecessary investigation of countries whose markets offer no present possibilities of successful introduction of the company's products. There may be a huge potential market for motor cars in China, but actually the market is useless at present because of the lack of roads. The same is true of Japan where the jinricksha roads are not wide enough to admit of the passage of an automobile, except in the larger cities.

There are many further possibilities of the preliminary work. Study of a commercial atlas will allow some conception of the possible geographical extent of the market. A map such as is illustrated in Fig. 46 may be of assistance in determining the

sections of a particular country which afford the best market for the product. Certain products are particularly fitted for sale in

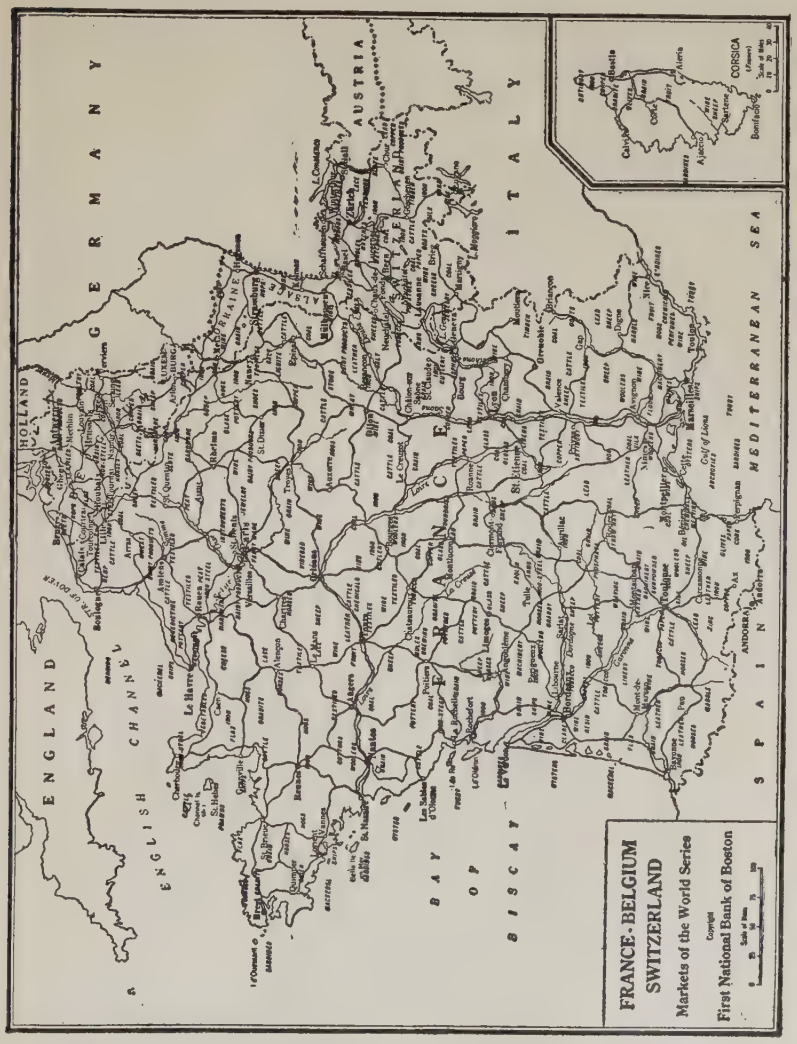


FIG. 46.—Map Showing Leading Industries.

the manufacturing sections and certain other products in the agricultural districts.

The preliminary work must be done ordinarily by means of

bibliographical study. Interviewing will be out of the question as far as customers are concerned, unless some rare chance throws a foreign buyer in the investigator's path. Answers to letters cannot be received in time for preliminary work. It may be possible to obtain help from experts, although in many cases their opinion will be valuable only as regards a single country or group of countries.

Determining the Problem. The problem in the foreign field may occur under either one of the following two aspects:

(1) The company already may have established foreign connections, either direct, or through commission houses. It may be desired to conduct the survey on the basis of what has already been done. In this event, the problem becomes simplified. The surveyor knows what countries he must deal with, he knows what has already been done, he has connections established through which to work, and he can readily ascertain what is wrong with present methods. He has a groundwork to build upon.

(2) The second and harder case is where the company desires to enter the foreign market for the first time, never having done any exporting previously. It is not a question of prosecuting a work already commenced, but of initiating matters. The difficulties ought not to be minimized, since foreign trade is not simple but highly specialized.

In a case such as this, it amounts to finding a market for the product, involving, as it does, recommendations as to modifications, government regulations, shipping rates, etc. However, it may depend on the company's reasons for wishing to enter the foreign field. Some companies do so because of a natural desire and need to expand, others do so because they feel they will find a better market abroad than at home; still others do so because they are marketing a product for which demand is naturally limited, and they wish to take advantage of whatever demand exists at foreign points as well as at home.

The Product. A product that is eminently suited to domestic needs may be absolutely useless for foreign purposes. For example, there is a law in India, the Dutch East Indies, and in New Zealand that motor cars shall have right-side drives. A typewriter with English characters would be useless in Russia, Czecho-Slovakia, or Poland. Even in France or Spain, the type

would have to be modified. In every case the investigator must ask himself: "Is there anything to prevent the use of this product in this country?"

There has been much discussion of late years about the desirability and even necessity of fitting the product to the market, and not trying to force something the public did not want down their throats. As the government points out in "Export Trade Suggestions," the manufacturer of a plow must find out the condition of the soil in a particular locality before he attempts to sell there, because, as everyone knows, the nature of the soil, and the character of the crops raised, determines the style of the plow. In this case, the market should determine the product. But in South America, where locks are so clumsy and keys so large that they have to be jointed in the middle to fit the pocket, there should be a campaign to educate the public in the use of modern locks. In other words, there are limits beyond which it is foolish to carry the theory that the public must be satisfied at any cost.

In many foreign countries, the bayonet base is used, instead of the screw base, on electric lamps, This is a case where it is easier to manufacture bayonet bases than to change the public taste. There are other cases where the climate may necessitate special modification of the product. Electric fans for China need extra insulation on account of the excessive humidity.

Color and appearance play a great part, especially in illiterate communities. Goods are actually purchased by the color of the package or the picture or trade mark on it. Such small things as this often determine its success. Some goods and products, for instance, have to be altered for nearly every country. Soap is preferred black in China, mottled in South America, yellow in many places, and white in New England.

In Chile, an automobile painted dark blue or black has a restricted market. The same is true of China, where cars are said to be bought largely on account of their color, general appearance, number of accessories, etc. A case is cited where a manufacturer furnished shipments of cars, each one painted a different color. These cars were bargained for as soon as they arrived. Bright green, light blue, various shades of red or brown seem to be most popular in China. A car should have mirrors,

since it is reported, somewhat facetiously, that the Chinese would rather look at themselves than the road.

The manufacturer may find some strange new uses for his product. In China, for example, glasses are many times not used to aid vision but worn purely as ornament.

If the product is a necessity, and required in the home by nearly everyone, the problem of successfully introducing such a product in foreign markets is in many cases remote. Labor generally is cheaper abroad, and competition on the same price basis, taking into consideration freight rates and increased cost of distribution, would be practically impossible unless carried on on such a scale as to allow extremely cheap production. Foreign countries are likely to compete with us in our own territory in goods of this nature, such as matches, china, toys, etc. What many companies have done is merely to establish a foreign subsidiary to manufacture the product there and merchandise it on terms of equality with foreign competitors. In fact, this is often the only way in which competition could successfully be maintained.

Most products which meet with success abroad depend for their popularity on their style, rarity, or novelty. If it is a utility, it is likely to be one for which foreign producers have not the materials, the facilities, or perhaps the secret of producing. The question of how many lines, styles, and sizes to ship abroad can usually be determined only through actual consultation or correspondence with foreign dealers. The size of the product is very important to consider. For sections of South America where open roadsteads only are available and goods must be lightered to shore and then loaded on animals, proper packing according to weight is essential. Makers of boots and shoes have had to regulate the size of their packages to the carrying capacity of the llama.

The Company. The investigator will have less to do with the company proper when it comes to foreign work. Here, as always, it is secondary to the product. But there are some essential qualifications which the company must possess. In the first place, it must be able and willing to produce the type of product needed abroad. Further than that, it must be able to sell and distribute through its own sales channels, or be able to pro-

cure elsewhere, some other satisfactory media of sales and distribution.

The location of the company may have something to do with the foreign problem. For instance, a company on the Pacific Coast is more advantageously situated for trade with the Orient, and, conversely, more disadvantageously located for trade with Europe, than a company on the Atlantic seaboard.

The credit situation of the company is highly important. It must have money enough to finance sales over a much longer period than is customary in this country. If it is not prepared to do this, it cannot hope to compete, unless it puts its affairs directly into the hands of an exporting house.

Too many companies in the past have adopted the position that foreigners were insatiably desirous of obtaining American goods, and therefore all that was necessary was to make the goods and ship them abroad. It is now generally recognized that this is not true, and that the company must formulate its foreign policy with the utmost care.

The Industry in General. What is the situation in regard to the business abroad? What is the price tendency? What are the methods of distribution? Is there a trend towards concentration? Are methods of manufacture more advanced or more backward than here?

Perhaps there is no industry to compete. Automobiles are practically not manufactured in countries outside of the United States and Europe. Specialty products may be manufactured in this country entirely, as, for instance, those of the Eastman Kodak Company. This concern has almost as strong a hold abroad as it has at home.

If there is an industry of similar nature existent, it should be analyzed as carefully as possible. Its prosperity, its rate of growth, both in volume and value of production, should be noted; also the prices charged, the size of the product, the packaging, the number of lines and styles. This information will be difficult to obtain, particularly at such long range, but much of it may be had through the consular services, exporters, etc.

Particular attention should be paid to the question of substitutes, what strides they are making, on what basis they exist, whether cheaper, better, etc.

Competition. Methods of doing business vary radically in foreign countries. So also does the character of the competition. The wide-spread tendency towards coöperation which has covered this country is lacking in many places abroad. Furthermore, business partakes of a more established character. The age of a firm is a positive asset, reckoned in goodwill. New firms are at a disadvantage, or have been until recently. New products may take a long time to become established. These conditions are true of the old world countries, but do not apply, of course, to Australia and Canada, countries whose methods of business and conception of progress most resemble our own.

The bases of competition will differ with each country. The surveyor may find that he will have to divide the survey according to the countries covered. Price will always be important in countries where the inhabitants have, for centuries, been compelled to count every penny, where wages are low, where standards of living are immeasurably below ours, and where bargaining is the chief evidence of mercantile efficiency.

Goodwill is an exceptional asset abroad. Foreigners ordinarily are opposed to change; they will buy what they have always bought, and what their fathers bought before them, unless thay become disgruntled, or unless some unusual merchandising methods subvert them from their allegiance.

An American manufacturer, shipping abroad, must always face the possibility of his trade being ruined by the establishment of home manufactures and the imposition of a prohibitive tariff. For example, there is danger of our exports to China of electric lamps being superseded by lamps made in Shanghai, where cheap labor and proximity to the market render competition difficult.

In addition to meeting the competition of foreigners on their own ground, the company should make allowances for competition with other American companies shipping their competing goods to the same market.

Customers. If the company already has established connections with foreign firms, these customers should prove to be a great source of information as to the proper policies to adopt in regard to merchandising in foreign countries. In the majority of cases, the foreign merchant is likely to give more careful thought and furnish more complete answers than the American merchant.

His trade is established; he knows his market; his market knows him.

If the company has no customers, it is part of the surveyor's task to find some prospects. By consulting Kelly's Directory of Manufacturers and Merchants of the World, he can obtain a list of firms trading in any particular commodity in any country. Also, through the Bureau of Foreign and Domestic Commerce, he will find in many industries that the Bureau has on file selected lists of firms arranged according to countries, and also with size ratings, and some remarks about the kind of business they do, whether general or special, whether this industry is a main line or whether they merchandise other goods at the same time.

Walter F. Wyman, sales and export manager of the Carter's Ink Company, has shown that foreign credit losses on branded American merchandise averaged from one-eighth to one-quarter of one per cent., and average from 20 to 75 per cent. less than their per cent. on domestic credit losses. This is due to several factors. In the first place, shipments to foreign customers are ordinarily in larger quantities. They must be large to be economical. The producer takes few chances in looking up the credit ratings on such a valuable shipment, whereas in a domestic order he would devote little thought to looking up orders many times smaller. Secondly, he can secure definite information as to credit ratings from Dun's, Bradstreet's, the National Association of Manufacturers, the Philadelphia Commercial Museum, export journals, banks with foreign branches, etc. It is customary to obtain two or three separate reports on every sizable credit risk. If this policy of "Safety First" were applied to the domestic credit problem, it is safe to say that the percentage of bad debts would be greatly decreased.

The Ultimate Consumer. Who is going to buy this product among the many millions of foreign prospects? Is it the European lady of fashion or the African native woman? Is it the Welsh miner or the French peasant? The consumer problem is a racial problem. Prejudice and custom are strongly entrenched behind inherited methods of living. New things are apt to be regarded askance. Publicity as we know it does not exist.

Class distinction plays a great part in all foreign markets. The forms of government are generally more aristocratic in fact,

if not in theory, while the peoples are more divided by class differences, whether inherited, acquired by money, or induced by education. It is the upper classes which own the luxuries, the pianos, the automobiles, and the other ornaments of civilization. Furthermore, wealth is not distributed over so large a percentage of the population as in the United States.

All the considerations applied to the domestic consumer should also be applied to the foreign consumer. Particularly is the subject of literacy of importance. The percentage of those who can neither read nor write is enormous. This means that a large portion of the population cannot be reached by such publicity methods as we employ in this country.

Races differ temperamentally in their habits of purchasing. The Australian, for example, who is ordinarily supposed to resemble somewhat the American, is passive on the adoption of home life conveniences, but, once interested, does not hesitate for financial reasons. With other nations, it is the other way round. They are interested, but cannot bring themselves to spend money for things without which their fathers were perfectly content.

Religion plays a prominent part in some countries. Wherever the Mohammedan faith is predominant, and this is true of a large part of the world, animal fats must not be used. It was the reported dipping of the army bullets in grease that helped bring on the great Indian Mutiny.

The Nature of the Market. Who is going to use this product in these foreign countries? It is the purchasing population which matters, and in many foreign countries this is but a small fraction of the total. The population of China, for instance, is around 336,000,000, yet this does not mean that the market for goods in China is to that amount of people. As a matter of fact, the population of China, which may be reached by American companies, is nearer 8,000,000.

Many companies consider the urban population as the standard in computing foreign markets, since it is usually very difficult to reach the rural inhabitants. However, it depends a great deal on the nature of the product, and how it is distributed.

After determining the possible foreign users of the product, the surveyor must ascertain how many have money enough to

buy it. Per capita wealth is far below the standard of this country, and even in the cities the purchasing population is less.

The surveyor must consider how transportation will affect his problem, and whether the product is of such a nature that it will stand the long trip. In shipping to warm countries, packages frequently have to be hermetically sealed, or specially prepared in some other manner.

Potentialities and Limitations of the Foreign Market. Potential markets abroad are often very large at the outset, but when the numerous limiting factors have been considered, there is frequently little actual market left. Potential and actual markets in foreign countries are very far apart. There is, for example, a vast potential market for electrical apparatus. As the *Electrical World* points out, electric lighting in the homes of the old world is in its infancy. Candles, kerosene, and gas are used. The new world, including Australia, New Zealand, and Japan, have quite generally adopted electric lighting. A large portion of the population of South America can never be considered as users. France is years behind us.

Special local conditions may increase markets. For example, New Zealand, with much water power, and many hydro-electric plants, uses electricity for cooking, electric heaters, etc., in much larger proportion than other countries. For such useful facts as this the surveyor should be continuously on the lookout. Approximately 7 per cent. of the Japanese people are users of manufactured shoes, yet the number is increasing at a rapid rate due to the abandonment of the national costume in favor of Western dress. This is a case where a small actual market is rapidly becoming larger and a progressive manufacturer of boots and shoes might be in a position to take advantage of it.

Limitations on use must be carefully considered. They may be of every kind, geographical, climatic, seasonal, due to prejudice, price, etc. They may be legally imposed. Out of the possible extent of foreign markets, a great many are eliminated almost immediately. Limitations may be temporary, such as adverse foreign exchange, or they may be prohibitive, such as a protective tariff, or they may be permanent, such as the character of the population, standard of living, purchasing power, etc.

Seasonal limitations are very important, coming as they do at

different intervals. It may be possible, however, for a company to take advantage of this fact, and so coördinate its sales that production here would be constant.

Even after considering all factors, it may still be hard to point to one country and say, "This market is satisfactory," and then point to another and say, "It would be better to avoid this one."

Merchandising Methods. The sales problem, in the event that the company decides to prosecute the foreign market through a sales organization of its own, is a very particular problem. In the first place, the salesman must speak the language of the country to which he is sent, or one that is well understood. In the second place, he should be acquainted with the customs and business methods of the country. He must know his product. He should be capable of passing upon many credit matters which it would take too long to refer back to the company at home. The foreign salesman has a much greater degree of responsibility. He is not under such close control; he is more of a free agent.

What the investigator should determine is whether the company will find it feasible to use its own salesman or whether it must rely on foreign agents, exporters' agents, etc. He can obtain some help in this respect by observing the methods of competing companies, if there are such, marketing to the same field. He must use methods at least as good as theirs if he hopes to succeed.

The same problems of jobber and retailer will meet the manufacturer who attempts to market abroad, and he must make the same decisions about methods of marketing, what terms he shall grant, etc., etc.

Methods of packing take on great significance, as the articles shipped must not only stand a long and difficult journey, but must come out of the case finally in attractive shape. Printed matter on cartons should be in the language of the country where sales are to take place. Some companies avoid a multiplicity of labels by printing directions in three or four languages on the same carton, so that it may serve for several markets.

One of the salesman's best assets is an attractive sample case. Dealers abroad are said to be sold on buying from sample cases. They want to see the product. The display of samples made up for the salesman to take with him should be such as to attract favorable attention. The success of a company abroad may be

due to the ability which it displays in rendering samples attractive. It is said that one exporter of office supplies has his display cases designed by a prominent maker of jewelry boxes, so that the product may be displayed to the greatest advantage.

As mentioned before, an attractive carton for the product is essential in selling the product in many foreign countries. The ignorant populace judges by the exterior rather than the interior. There is a desire for color. As each country is so different in its tastes and peculiarities, nothing in this chapter should be taken as universally applicable.

How is the company going to distribute its products abroad? The following methods are ordinarily used.

(1) By the company itself through branch offices abroad and a carefully systematized foreign trade department.

(2) Through manufacturers' agents.

(3) Through exporters.

(4) Other methods.

The second and third have the advantage in that they find the customers, relieve the company of the credit risk and also the necessity for carrying goods over a long period. They have the disadvantages of all middlemen. It is a question whether the functions they perform do not override the disadvantages. A company that does not market direct in this country cannot very well hope to do so abroad. It depends, however, on the character of the product and the character of the market.

Publicity methods are quite different. It is not ordinarily so easy to make the public acquainted with the product through the columns of newspapers, or magazines, as the public do not read the advertisements, this statement of course not referring to many English-speaking countries of the world. Even in France and Germany and other civilized countries of Europe, there is not the same custom of reading the paper, and more particularly reading it for advertisements. In other words, consumer advertising abroad generally is not carried on to any great extent. Such advertising as is done is done through trade papers to the trade or through general publications with a special view to the trade.

Methods of Securing Data. There are books dealing with foreign trade in general, and others dealing with foreign trade to particular countries or in particular commodities. There are a

dozen periodicals on the subject. There is much statistical information to be obtained. Catalogues and pamphlets may be had from foreign competitors, either by direct request, through customers, or through other sources.

Statistical. The Bureau of Statistics of the Department of Commerce publishes annual, quarterly and monthly reports of import and export statistics of trade with foreign countries. The value of these trade statistics lies in determining what the different countries already consume of any given product, and the rate of growth of this consumption over a period of years. It is a good plan to compare the figures compiled by foreign governments with those prepared by our own Bureau of Foreign and Domestic Commerce.

Geographical. An up-to-date atlas and gazetteer should be consulted. The atlas will give the location of foreign places, principal ports, routes, etc. The gazetteer will give the different spellings of the various foreign names. If business is done with India, a copy of the Indian Postoffice Guide should be secured, as the names are spelled in such varied ways.

Directories. From directories the surveyor will get addresses of firms and individuals, lists, names of importers, exporters in various markets, by articles, etc. In addition to Kelly's Directory of the Merchants and Manufacturers of the World, there are the Didot-Bottin for France and the French colonies, the Deutsches Reichs-Addressbuch for Germany, and additional directories of specific cities and countries.

Annuals. These annuals contain official data regarding government corporation taxes, commercial laws, courts, etc. They are published in Australia, Europe, China, India, and even in such places as the Dutch East Indies, Grenada, and Jamaica.

Customs Tariffs. The surveyor should always ascertain the duties on goods imported into various countries, and the other customs regulations regarding that product. The International Customs Union, Brussels, publishes this information in English, while Kelly also puts out a Customs Tariffs of the World. In addition, the Tariff division of the Bureau of Foreign and Domestic Commerce has compiled customs information relating to American products in foreign countries.

Specific Information. This is information relating to the surveyor's own product, whatever it may be. He will find classified clippings on all subjects pertaining to foreign affairs on file at the various offices of the Bureau of Foreign and Domestic Commerce. These offices may, in addition, have special monographs on the subject.

General. There have been quantities of books and pamphlets written on the subject of exporting, some by government experts, others by banks with foreign branches or extensive interests. There are also the various periodicals dealing with foreign trade which often have extensive information available to the surveyor. The various American Chambers of Commerce abroad publish pamphlets dealing with the situation as it affects American products.

The questionnaire ordinarily must be relied on for some of the first-hand information. Obviously, it is seldom possible to give such inducements to reply as an enclosed stamped envelope, and it is difficult to offer anything in return for the information save a possible business relation with the company. The results are not perfectly satisfactory, yet questionnaires can be worded in such a way that where possible customers are concerned, the percentage of replies is fair. Questionnaires may be sent with good results to American consuls in foreign cities, who often have special information at their disposal. There are also business bureaus established in the United States by foreign countries to promote trade relations. Foreign consuls in this country may be of help.

All questionnaires and letters should either be in the language of the country to which they are sent, or at least in a language which is readily understood. English, for example, or German, are both readily comprehended in Scandinavia, while French is understood in Russia. The language should always be exceedingly clear. It should offend no racial prejudice; it should be easy to answer, as brief as is consistent with a thorough expression of the facts, and courteous. The foreigner particularly appreciates politeness.

Insufficient postage may be responsible for a great deal of unanswered correspondence. The surveyor should see that every letter sent abroad has its proper postage affixed.

Interviews are out of the question unless it is possible to locate someone who is an authority on trade and mercantile conditions in the country under investigation. It is also wise to talk or correspond with exporters making a specialty of the particular country or product. They may have much practical knowledge of value.

It is often deemed advisable to send an investigator abroad to get first-hand information. It would be fairly inexpensive for a company near New York to send a representative to Europe, and the expense of sending a man from New York to London would not be more than what it would cost to send him to California.

General Conclusions. This section on foreign markets is merely a résumé of a subject which would require many volumes to do it full justice. It is intended to show the business man what he can learn through an analysis of his foreign markets, and give him some idea of the scope of the task. As foreign marketing is ordinarily a specialized activity, any manufacturer or company wishing to make a foreign survey should treat it separately. The subject matter, although apparently the same, will be widely different. The surveyor will be dealing with an entirely different conception of business principles and methods. He will be dealing with a different class of consumer, a different standard of living.

This does not mean that a foreign survey may not be carried on in connection with a domestic survey, but it does mean that the two should be kept separate, and that what applies to the one does not apply to the other. In fact, it is necessary to divide the foreign survey into as many sections as there are countries covered, and the foreign survey becomes a collection of separate investigations.

CHAPTER XIX

APPLYING THE MARKET SURVEY TO BUSINESS

Outline

Why may it be difficult to convince the management of the applicability of conclusions to the business?

(*a*) Opposed to innovation.
(*b*) Conclusions may seek to do away with favorite policies.
(*c*) Natural hesitation to change present methods.

Why may it not be desirable to apply conclusions immediately?

(*a*) General business conditions.
(*b*) Specific company problems.
  (1) Organization.
  (2) Financial.

What are the general applications of market analysis?

(*a*) The better understanding of present markets.
  (1) Will define the present market.
  (2) Will show causes for market fluctuations, etc.
(*b*) The disclosure of unexploited markets.
  (1) Is it advisable to extend sales geographically?
(*c*) The utilization of by-products.

What are some specific results of market analysis?

(*a*) To the sales department.
  (1) As determining the proper sales arguments.
  (2) The possibility of actually establishing sales communications.
  (3) Information regarding the industry in general.
  (4) Correct plotting of markets and division of sales territories.
  (5) New sales channels through which to sell product.
(*b*) To the advertising department.
  (1) Indicates where, how, and to whom advertising appeal should be directed.
  (2) A guarantee against misdirected advertising.
(*c*) To the production department.
  (1) Modification of the product to meet market demand.
    (*a*) Technical improvement in product.
    (*b*) Improvement in appearance of product.
  (2) Discovery of new product to manufacture.

CHAPTER XIX

APPLYING THE MARKET SURVEY TO BUSINESS

A MARKET analysis is not simply an analysis of the market; it is a survey of the business from one end to the other. When the investigation appears to be going beyond its province and entering precincts sacred to the production or purchasing department, in actuality it is not so. The head of the production department, if he nods assent when a market survey is suggested, under the impression that it will affect only the sales department, should not be surprised when he finds that the survey reveals the necessity for a change in the product, and consequent revamping of his entire programme. The market cannot be divorced from the other aspects of the business, and necessarily the survey takes these into consideration. Did it not do so, it would fail in its attempt to be scientific, since scientific methods presuppose thoroughness.

The time to consider the application of the survey in terms of results to the company and the business is before the report is written. The surveyor should always bear in mind the pressing needs of the company. The preliminary report may have given him fairly definite lines to work upon. A searching analysis of the data should have crystallized them into conclusions. But his task is not completed even then. He must ask himself, "How can the company use these conclusions? How can it convert them into dollars and cents?"

It is excellent policy to lay out a plan of action preparatory to handing on the work to the various departments. A planning chart may be made up, similar to the one shown in Fig. 47, which will give an idea of the various steps to be taken before changes can be put into effect. Details such as are brought forth in this chart must be worked out before any tangible and profitable results may be expected.

When is it expedient to take up market surveys? When are

they warranted? These, obviously, are questions which should be faced in the beginning; yet they are never more forceful than when it becomes necessary to account for the money expended in conducting market research work.

Sometimes, it must be admitted, it is desirable to try a scheme out by pure experiment, mere test, rather than to attempt a solution of the problem by analytical methods. An original, if some-

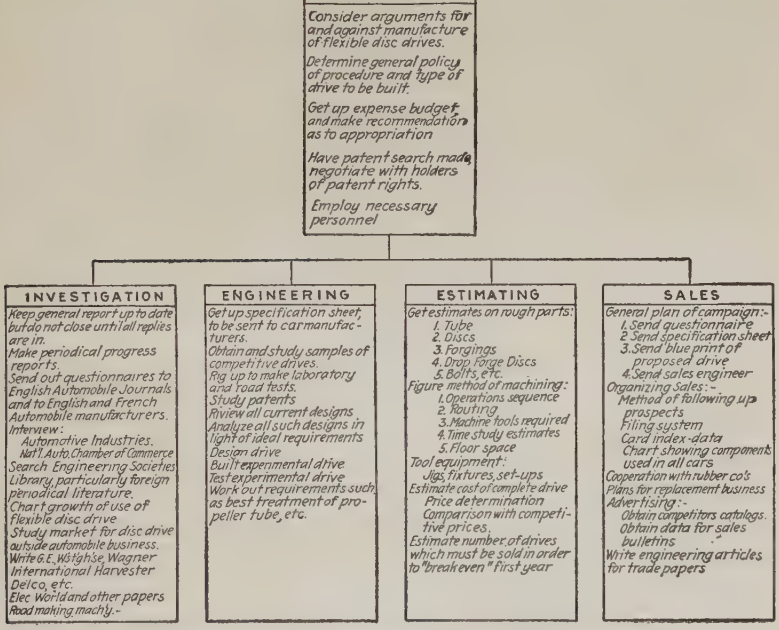

ADMINISTRATIVE
Consider arguments for and against manufacture of flexible disc drives.
Determine general policy of procedure and type of drive to be built.
Get up expense budget, and make recommendation as to appropriation
Have patent search made, negotiate with holders of patent rights.
Employ necessary personnel
INVESTIGATION
Keep general report up to date but do not close until all replies are in.
Make periodical progress reports.
Send out questionnaires to English Automobile Journals and to English and French Automobile manufacturers.
Interview:
Automotive Industries.
Nat'l. Auto. Chamber of Commerce
Search Engineering Societies Library, particularly foreign periodical literature.
Chart growth of use of flexible disc drive
Study market for disc drive outside automobile business.
Write G. E., Westinghse, Wagner International Harvester Delco, etc.
Elec. World and other papers
Road making machy.-
ENGINEERING
Get up specification sheet, to be sent to car manufacturers.
Obtain and study samples of competitive drives.
Rig up to make laboratory and road tests.
Study patents
Review all current designs
Analyze all such designs in light of ideal requirements
Design drive
Built experimental drive
Test experimental drive
Work out requirements such as best treatment of propeller tube, etc.
ESTIMATING
Get estimates on rough parts:
1. Tube
2. Discs
3. Forgings
4. Drop Forge Discs
5. Bolts, etc.
Figure method of machining:
1. Operations sequence
2. Routing
3. Machine tools required
4. Time study estimates
5. Floor space
Tool equipment:
Jigs, fixtures, set-ups
Estimate cost of complete drive
Price determination
Comparison with competitive prices.
Estimate number of drives which must be sold in order to "break even" first year
SALES
General plan of campaign:-
1. Send questionnaire
2. Send specification sheet
3. Send blue print of proposed drive
4. Send sales engineer
Organizing Sales:-
Method of following up prospects
Filing system
Card index-data
Chart showing components used in all cars
Cooperation with rubber co's
Plans for replacement business
Advertising:-
Obtain competitors catalogs.
Obtain data for sales bulletins
Write engineering articles for trade papers

FIG. 47.—Plan of Action after Completing Survey.

what unethical, exposition of this method of testing out a market was used by a publishing house, which believed a certain series of books might be successful. They wished, however, to test the market before actually risking any money. Accordingly, they solicited subscriptions for the set of books. After careful study of resultant orders, they decided the venture was useless, sent the money back to those who had already paid, and gave up the undertaking. This was a unique and effective short-cut to the analysis of a market.

Before deciding to enter upon a complete and possibly an expensive market investigation, the business man may well consider whether he may not arrive at substantially the same results by some such empirical method.

Convincing the Management. Strictly speaking, the surveyor's function ceases with delivery of the report to the executives, who then should do their own translating into cash. Too frequently, however, they seem to have an idea that all they need to do is to endorse the report, as though it were a check, and convert it instanter into money. The surveyor should nip in the bud any such false hopes.

The final success of the report, its practical application, and the beneficial results derived therefrom, will depend much on the degree of coöperation received from the management while it is being made. The market survey should be regarded as vital to the whole business, and not an unimportant detail. Unless the executives have been convinced of this, and have been willing to give it their very careful thought and aid, it would have been better, perhaps, never to have started.

There are always people opposed to innovation, who look askance upon any break in the customary routine. It is hard to convince them. They do not wish to be convinced. The old adage applies that "A man convinced against his will, is of the same opinion still." Therefore, it is better to lead such executives than to drive them. Let them draw the obvious conclusions, and they will think that they themselves have made them. Instead of saying in the conclusions, "The product must be changed thus and so," it is better to say, "The demand of the market seems to be for a product with such-and-such qualifications, and a product embodying these would seem assured of success." In other words, the reader draws his own conclusions, yet these conclusions are perfectly obvious.

Sweeping recommendations are almost certain to arouse some antagonism. In the first place, they may seek boldly to destroy a policy or system installed by or especially dear to someone in the organization. In the second place, they may stamp with disapproval some practice others have countenanced, if not openly, at least with tacit consent.

It is this potential antagonism which may make it so difficult

to get any action on the results of the report. It is often a conflict between conceded facts and personal predilection and belief. But the market survey will at least focus the ideas of everyone upon many questions which either had never been raised before, or had not been given recent consideration, and the inevitable discussion is almost sure to put the management on its guard, if not to lead to constructive results.

Changes. It is safe to say the average report will point to changes of one sort or another. These may be minor or major in their importance, but, in either case, the company or individual in whose hands lies the actual decision as to whether these changes are to be made must exercise great care.

In general, changes in business are to be avoided. Any change, and particularly a radical one, will necessarily cause a certain amount of disturbance and confusion. The most successful businesses are those in which very little surgical work is required. But the report is likely to point directly or indirectly to such changes, and the two points of view must be reconciled, that of the evidence shown in the report, and that of expediency from the viewpoint of the company and general business conditions.

It stands to reason that the man who makes the market survey will not ordinarily be in possession of a knowledge of the vital affairs of the company to the same extent as the executives themselves, and consequently, it will not be strange if he makes recommendations which cannot advisedly be put into immediate effect.

Constructive changes usually cost money. One reason, therefore, why recommendations cannot be utilized may be lack of funds. For example, it is not unusual for the enthusiastic market surveyor, pointing out the general dissatisfaction in the trade over the distributive situation, to urge the elimination of jobbers and to recommend direct sales to dealers, combined with an advertising appropriation, etc. Although this may be an excellent idea, it may be inadvisable to put it into immediate effect on account of the necessity for more working capital, increases in office force to take care of credit, etc.

Another point is that the average market report seldom takes sufficient cognizance of general and fundamental business conditions as they exist at the moment. The market surveyor, unless highly experienced, is apt not to have a view of such conditions

sufficiently comprehensive to enable him to advise on them. Regardless of temporary commercial fluctuations, he may find the facts to be thus and so, and that a decisive course of action must be followed. Yet, in reality, it may not be expedient at the time to make any changes. It may, on the contrary, be an occasion for curtailment.

Almost any trained man can make a fair market survey by himself, but it often takes the combined energies of many trained minds to translate it into profit. A market survey is valuable or dangerous according to the way in which it is applied.

Some executives, even though recognizing the logic of the conclusions, are so conservative and so cautious that they do not have courage to put into effect schemes which the inquiry has revealed to them as practicable and sound. Such men content themselves with expressing admiration for the resourcefulness of the surveyor and for the excellence of his report. But they keep on along the same old track.

But a far greater mistake is that made by the over-enthusiastic executive who is prompted to put into effect all the recommendations at once, without caution or reserve. Most market surveys, as they are now made, set forth certain clearly defined plans of action, but they rarely propose workable means for putting these plans into effect. If any business suddenly adopted all the recommendations of the ordinary market report, it might find itself on the road to bankruptcy.

This does not mean that changes are not desirable and indeed constantly being effected. No business runs along at a dead level over any length of time. Every well-conducted business is constantly changing. It is in a state of flux. It is expanding or curtailing, building or tearing down, progressing or retrogressing, as truly as if it were an animal organism. Most sound men believe in changes, though admitting the danger of abandoning something which has been tried and worked for something which is as yet an unknown quantity.

The General Results of Market Analysis. It is impossible to predict the precise advantages to be expected from an investigation of any market without being cognizant of the particular conditions which surround it. In fact, a danger which confronts every investigator is that of attempting to foretell what profits

may result from his work. It is almost as unscientific to state in advance what profits will accrue from a market survey as it would be to predict the outcome of an entirely new laboratory experiment. Indeed, commercial research is itself, in a sense, laboratory work.

In a general way, however, it is possible to foreshadow the outcome of any market study. There will be certain definite results:

(1) *The Better Understanding of Present Markets.* A market survey will almost surely define the market already available. Sales which have previously come in for no apparent reason, other than that they have always come in before, will now be found to be the result of certain well-defined economic causes. The survey should show the motives for purchase, the tendency of the market to fluctuate, the underlying causes for fluctuations, and the possibility of reducing these fluctuations to a more stable level.

As an example of what may be done towards understanding the possibilities of correcting seasonal demand through an intensive study of markets, we have the concerted action of the lemon growers to overcome the idea that lemon consumption was confined to the summer. The advertising campaign conducted with this end in view was successful in creating an all-year demand for lemons, and, in this way, one of the underlying causes for fluctuation was removed.

Consumers' views may bring out valuable market information. Fig. 48 shows graphically a few facts obtained from automobile owners as to their hand tire pumps. In the first place, the chart showed what a large percentage of pumps had to be replaced by the purchaser of a car. Secondly, it showed that in spite of the prevalence of free air stations, there was still much use for hand pumps. Thirdly, it showed how brief the life of a pump was, and fourthly it determined the average price a customer was willing to pay for a pump. In practical application, it supplied the information necessary to compute the size and value of the repeat market for hand pumps.

The survey will also indicate generally the present trend of market demand, and the type of consumer to whom the appeal should be made. Not only will the case of individual consumers

be analyzed in detail, but the number of consumers will be estimated, their buying power determined, and their geographical location described. This information will be of inestimable help to any sales department.

2. *Disclosure of Unexploited Markets.* In addition to enumerating, classifying, and analyzing markets already served, a

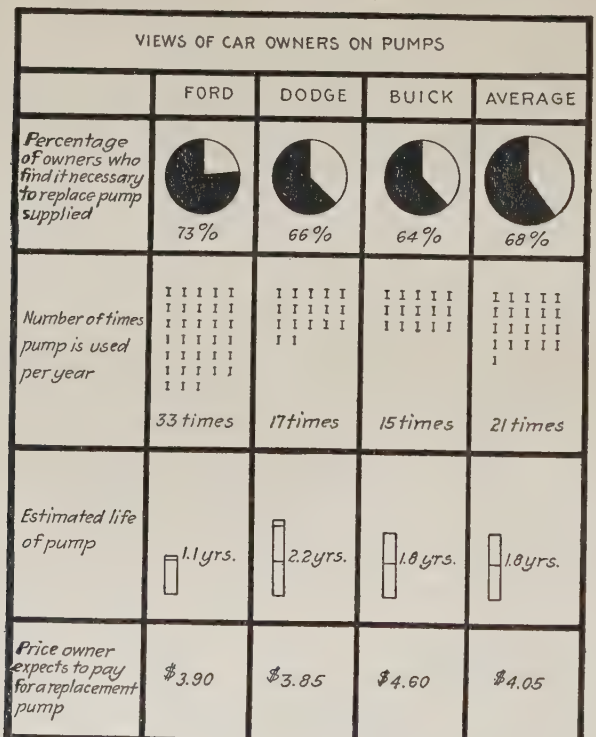


FIG. 48.—Results of a Market Survey Shown at a Glance.

market survey is likely to reveal new markets for a company. It is not unusual to find that a company is seeking its market at a distance, while neglecting the opportunities at its door. Sales departments often have fixed ideas on the proper fields for exploitation. A market analysis should serve to show whether the plans of the sales department dovetail with the actual conditions. It should determine the advisability of extending sales

over wide geographical areas, as opposed to intensive cultivation of local markets. It will consider the merchandise in relation to its adaptability for transportation, the logical methods of distribution, of packing, etc.

(3) *By-products.* Of late years, the subject of by-products has been given much attention by manufacturers, notably the packers. The large chemical companies have also devoted themselves to the subject with surprising results. One of the most successful functions of market analyses has been to discover markets for by-products. An investigation was made a short time ago for a marble company which had for a by-product of its block and slab business crushed marble in the form of broken pieces. A market analysis was made of this product. It was discovered that the "scrap" marble, when properly crushed, was peculiarly fitted for use in terrazzo floors, that a large demand existed for it, and that the market would absorb the supply as fast as produced. Furthermore, when production was started, it was found that crushing the marble gave another by-product, marble dust. It was ascertained that this marble dust could be used for fertilizer, for soda water, for baking powder, for putty, for rubber, for soap, for dentrifices, and for a dozen other purposes. A market was found for more than the capacity of the quarry. This brings out the point of material profit to be obtained from a survey of this kind. There are few instances on record where the actual profit from making the survey did not exceed considerably its actual cost. Interest is aroused among customers, new and old, which is eventually turned to profit by the sales department.

Some Specific Results of Market Analysis. Aside from the general results of market analysis, there are so many ways in which the company may be affected, that mention should be made of the manner in which market surveys may be applied to the different activities of the company.

Sales. There will be certain direct applications of the survey to the sales department. These will be inevitable, since any investigation of the market must react on the system by which products are brought to that market. It will not only serve to reveal market possibilities, but will also indicate the methods of taking advantage of these possibilities.

One very definite application of the results of the survey to the sales department is in the matter of furnishing sales arguments for the product. The majority of salesmen try to sell their goods through carefully prepared selling talks, which may or may not be convincing. They have been coached by the sales manager through personal interview and sales bulletins just what the talking points of the product are. Fig. 49 shows the result of a tabulation of buying motives for washing machines, made by the Idaho Power Company. The general opinion prior to this survey had been that most women bought washing machines to avoid drudgery, while, as a matter of fact, 30 per cent. wanted a washer because it saved time, and 25 per cent. because it did not require so much strength. This showed the sales department that their selling campaign had not been carried on along the lines of least resistance. They had not been selling the washers by catering to the motives for which most women bought washing machines.

The Packard Motor Car Company of New York calls market analysis the steering gear of their sales department. Their Transportation Engineering department made a complete series of analyses covering their territory. According to their Mr. William Elliot:

"The analysis showed who our chief competitors are, and their best market, also the percentage of business in each territory secured by them. Redistribution of territory has resulted from the analysis because the absorbing potentialities of each territory have been clearly demonstrated.

"The leading industries in each territory were determined. The analysis showed the industries using the most trucks and the trucks most used by them. It showed clearly the number of firms in each territory operating one truck, the number operating two trucks, the number operating three, four, or more trucks. The charts demonstrated the lines of business we were strong in and the lines we were weak in.

"Through distribution of local registration cards, district analysis has been made possible, resulting in a more equitable distribution of salesmen's territories. Using the registration cards as a basis, prospect files have been revised, and mailing lists have been brought up to date. Standards of accomplishment have been determined. The extent of competitors' domination has been determined. In short, information has been obtained that will insure the maximum results for distribution activity."

The above results were obtained by the use of statistics available on trucks and truck users. It is rarely possible to obtain

APPLYING SURVEY

Tabulation of Buying Motives.—(Idaho Power Co.)

I. Thirty per cent. wanted a washer because it saved *time*
   1. For other household duties while the machine did the washing.
   2. That they might be better mothers to their children and companions to their husbands.
   3. For recreation of all kinds, from playing the piano to going to the "movies."
   4. For rest.
   5. For political and social activities.

II. Twenty-five per cent. wanted a washer because it saved *strength*. The divisions were approximately the same as given above. Many combined *time* and *strength* arguments in one sentence.

III. Fourteen per cent. wanted a washing machine because it saved *health*.
   1. Drudgery and getting overtired were eliminated.
   2. Wet feet.
   3. Standing over a steaming tub and going out into the cold to hang up the clothes.

IV. Twelve per cent. wanted a washer because it would preserve their *youth* and *beauty*.

The divisions were nearly the same as given under "health," but emphasis was placed on the saving of their hands. Their temper and dispositions were also stressed.

V. Eight per cent. wanted a washer because it was more economical.
   1. Because it saved clothes. The destructiveness of rubbing was emphasized.
   2. Washing could be done oftener, so fewer clothes were required.
   3. Weekly laundry bills.

VI. Seven per cent. wanted a washer because it was more *sanitary*.
   1. Clothes were washed more thoroughly.
   2. Not mixed with other clothes at laundries.

VII. Three per cent. wanted a washing machine because it meant more *happiness*.
   1. Wash day troubles were avoided.
   2. A warm lunch for the children and the husband's dinner were on time.
   3. A general combination of all time and strength saving arguments.

FIG. 49.

such results without resorting to a field survey. The accompanying chart, Fig. 50, shows the selling activity of tea in Manhattan, prepared by the New York *Evening Journal* from actual interviewing of dealers. The survey will not only determine the extent of competitors' business, but also will ascertain why their business is small or great. It will not only uncover the psychological reaction of the consumer as to the product, but also that of the retailer or jobber. Thus, competition and

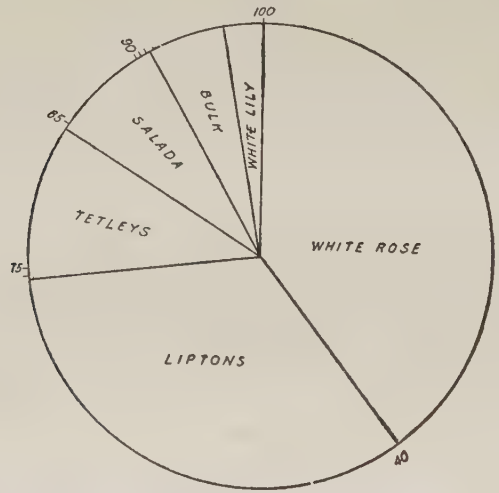


FIG. 50.—Selling Activity of Various Brands of Tea Charted. (*New York Journal.*)

sales resistance are charted from three viewpoints with correspondingly accurate results.

There is excellent possibility of sales being actually accomplished through the medium of communications established during the course of the market survey. The investigator is getting into touch with so many new people, many of whom are vitally interested in the subject under analysis, that if he is properly seconded by the sales department, business may ensue. The surveyor in getting his information does not have to pierce the defensive armor which the prospective customer dons as a guard and protection against the professional salesman. He presents his case in a purely scientific fashion. It is surprising how much

interest is aroused by this method of presentation. It impresses the public with a sense of the company's efficiency.

However, a word of caution is necessary here. Extreme care should be taken not to turn over any possible business prospects to the sales department without having previously obtained the consent of this prospect. The surveyor should never abuse his position and his ability to get information under the seal of confidence. The research department can never be synonymous with the sales department, and the functions of the two must be kept distinct and separate.

A market survey is often applied to an industry in general. Surveys are being made for the whole industry with a view to making the information available to each of the members of that industry. This is practically what the government is doing continuously.

Many kinds of interesting results may be obtained from the application of statistics to marketing problems. Fig. 51 shows how Mr. Webster, of the George Batten Advertising Agency, made a map in which the size of each state is made relative to its population. Aside from its pictorial uniqueness, it has many points of interest. Whereas on a regular map of the United States, with normal proportions, buying centers are bunched, on this map buying centers are fairly evenly distributed. The surveyor may find it advantageous to formulate such a map as this in which the areas of the states are made proportional to the market index, whether it is number of telephones, number of homes owned, wealth per state, miles of roads, etc. Such maps as these might prove exceedingly valuable for sales purposes.

Sometimes an investigation will reveal valuable sales information, existence of which was never expected. A survey was made for a company manufacturing cotton blankets. Prior to the survey, the appeal had been based on the theory that cotton blankets competed with woolen blankets, and it was the purpose of the survey to determine whether it were desirable to continue in this policy or to appeal to people actually using cotton blankets. In one interview with a single dealer the surveyor obtained more valuable information than in all of the rest of the investigation put together. This dealer said there were four big uses for cotton blankets and that none of these was strictly

FIG. 51.—Market Map of United States. Size of Each State Shows Relative Population. (*George Batten Company.*)

in competition with woolen blankets. The big field for cotton blankets was to take the place of sheets. The following cases were cited where there was a market for cotton blankets:

(1) For infants.

(2) Aged people.

(3) Immigrants who did not know what sheets were.

(4) Wealthy people who used cotton blankets instead of sheets in sleeping porches.

When these results were brought in, this interview was inserted among the others in the main report. The surveyor attempted to get his superiors to investigate this lead at greater length, but they thought it was not pertinent. However, for his own satisfaction, and because he believed this dealer had struck the root of the matter, he wrote a separate report of this interview, setting forth these ideas. Both reports were handed to the sales manager, with the remark that the ideas of the isolated dealer might prove amusing. The sales manager, after reading both, discarded the major report entirely, and presented the other to his directors. It was later used as the basis for a completely renovated sales campaign.

This was a case where the results of the survey were radically different from what could possibly have been prognosticated. In this instance, the entire sales plan was of necessity altered, to the marked advantage of the company. The business man who insists that he be shown in advance the monetary benefits of a survey is perhaps demanding too much. As in the example cited, the results seem almost to be a stroke of luck, and it must indeed be admitted that market surveys, like other business ventures, are, to some extent, a gamble.

The application of market analysis to the sales department is naturally most frequent, since it is through this department that the market must be reached. But the other departments are affected as well.

Advertising. The same ammunition applied to the sales force may be applied equally well to the advertising department. But in addition to supplying the facts, it indicates where, how, and to whom the advertising appeal should be directed. In fact, this is one of the most concrete results of the average survey.

Advertising men are coming to realize that the success of the

campaign depends as much on their knowledge of the product and the market as it does of their artistic methods of laying out copy and selecting type and illustration.

The market survey is a guarantee against misdirected advertising. No one has been quicker to see this than the agencies, which have taken this opportunity to protect themselves against failures so costly to their clients and injurious to their own reputations.

The resourceful surveyor constantly is running across opportunities that may be turned to the company's account. If he is commercially minded, all will be grist that comes to his mill. In the following case, The Chamberlain Metal Weather Strip Company sent out a questionnaire, asking what the results of weather stripping had been.

198 said save coal.
195 said eliminate drafts.
138 said stopped rattling of windows.
135 said more evenly heated homes.
132 said keep out dust.
65 said make windows slide easier.
15 said keep out street noises.
12 said keep out rain.
17 said eliminate storm sash.

In this case, the survey was beneficially applied to the business in two ways. First, information was obtained as to the exact requirements of users; second, the investigation itself was used as a means for publicity; that is, the entire results of it were published, making a novel and interesting advertising appeal. This was actually turning the results of the survey into immediate profit.

There is no question but that market analysis prevents misdirected or inadequate advertising, and in many ways it is true that the results of the analysis are directly applicable to advertising.

Production. Many market surveys indicate the desirability of modifying the product. For example, in the cotton toweling investigation previously alluded to, the report showed clearly that the manufacturer of cotton toweling should present his product in finished form rather than in the piece, since by far the larger demand was for finished goods.

Of course, a manufacturer who applies a market survey to his business must weigh the dangers of changing his product against the dangers of not doing so. In the ordinary business, after any recommendation for change in the product is made, it will be necessary to consult the engineering department and the production department to see whether it is possible to design this new article, and to produce it economically in quantities.

An extended study of market requirements might well lead the surveyor to a fairly accurate description of some new product for which there would be great demand. Such suggestions would go to the experimental department. Although it might take months or years to work out a feasible plan, yet in the end a highly successful product might be evolved. In fact, this is probably the only sure and scientific way of developing the permanently successful product.

One very important function of market analysis is that of regulating production to demand. One of the three largest electrical companies found out by means of a survey made through salesmen exactly what their customers would be sure to need for the next year. From these records a list of minimum requirements for the business was made up. It was found that so many lamps would burn out, so many motors fail, etc. That is, there would be a certain amount of wear and tear, regardless of the state of business. From this list of requirements the company could regulate its inventory, if not exactly, at least with the minimum of risk. This is a case where production actually was regulated by the potential demand.

By suiting productive capacity to market needs, the company secures rapid turnover, small inventory, quick profits, and an extreme elasticity in meeting situations before they occur. It is possible in this way to guard against any great loss through sudden market lapses.

Handling the Surveyor. Any research department, particularly if newly instituted, is sure to make blunders, but even the most flagrant mistakes have often been turned to advantage by the ingenious executive, to whom such mistakes are always suggestive and stimulating. It is, of course, to be expected that the market surveyor will make some ill-considered suggestions, and there is always danger in accepting any of his recommenda-

tions at their face value. The way to get results from a market survey is to be sure the findings are sound before any attempt is made to apply them.

The trouble with many investigators is that they are not sufficiently conservative. They become over-enthusiastic. They have the feeling that their contribution, and consequently their recompense, will be in proportion to the number of changes they advocate. A surveyor of this type is like a doctor who feels obliged to write a prescription for the hypochondriac in order to make him feel that he has received his money's worth. As a matter of fact, the most encouraging investigation is that one which reports that no changes are desirable in the company or its plans. The perfectly well man is beyond the reach of the physician.

One way of considering the matter of change is to set down all the reasons pro and con, as is done in Fig. 52. Before adopting any radical recommendations of the surveyor, it is wise to have them submitted to some such acid test as this.

Another matter in which a small thing may make a great deal of difference is in the question of a daily progress report. Sometimes headway in making a market survey can be charted.

In any case, it is highly desirable to have the surveyor give an account of himself at intervals. It is important to keep watch over him, particularly with regard to his accuracy and to make sure he is obtaining ample evidence upon which to base a conclusion, since without such evidence his findings will be of little value. He needs help and encouragement, and a steadying hand when entering a proposition with which he has had no previous experience, just as a child does who is learning to walk. He must be kept watch over so as not to do damage. Inexperienced men in such an important position can stir up all sorts of trouble, both within and without the organization.

Of course, in handling men of this sort, the only way is to know the man himself thoroughly. He must be controlled according to his abilities and shortcomings. If he is a man of the sales type, it is important to impress him with the necessity of absolute accuracy of statement, and with the idea that his mission is not to put his own words into the mouths of the people he is interviewing, but to obtain their opinions and to register facts impartially.

Feasibility of Manufacturing Flexible Disc Drives

Part 1—Arguments in favor of our going into the manufacture of disc drives.

(1) We are losing customers who are going over to the flexible disc. If we do not give them what they want, somebody else will.

(2) By going into this line we might obtain business which we could not expect to obtain otherwise.

(3) We would greatly strengthen our selling position, being able to offer our customers a complete line of joints.

(4) Even if the flexible disc proposition should not pan out big we should not stand to lose much. The tool expense is exceedingly small, in comparison to the great size of the possible market.

(5) This proposition gives us an opportunity to retrieve our good name in the automotive industry. It is perhaps our final opportunity to become known again as leaders in the field.

(6) If the disc is to be the eventual drive, and is to supersede the metal drive, it is a case of get into this line or go out of the universal joint business altogether. It is therefore a matter of importance to determine whether or not this development is expected to be of lasting importance. In undertaking such a prediction we must take into consideration the following facts:

(*a*) Some of the most progressive automobile manufacturers, and incidentally those making the most money today, have become enthusiastic converts.

(*b*) Those manufacturers who have installed it in the greatest number of cars, and who have standardized it for the longest time, are the ones who give it the heartiest endorsement, and say they could not be induced to return to the metal joint.

(*c*) The largest rubber companies, in spite of financial embarrassment which has caused the curtailment of practically all experimental work, are, after a vigorous examination of the market, spending thouands of dollars in developing flexible discs.

(*d*) The pioneer rubber company in the field reports a yearly increase in business of three to four hundred per cent.

(*e*) All our competitors, worthy of the name, are making feverish attempts to get into the business, or are in it already—to say nothing of those who devote themselves exclusively to the manufacture of flexible disc drives.

Part 2. Arguments against going into this line.

(1) There is bound to be considerable expense attached to this proposition, especially from an engineering and production standpoint. It is a question whether any such expenditures are warranted under the stringency of present conditions.

(2) There is not much use in going again into a line which anyone can go into. In order to protect our business, we should be obliged to buy up existing patents or develop our own. Either method would entail expense.

(3) The flexible joint is so extremely simple, and requires so little manufacturing experience, that the car manufacturers themselves would be likely to make their parts rather than buy them, and some of them are doing this already. We should have the expense of carrying them through the experimental stage.

(4) The whole flexible disc proposition may be merely a fad, after all, and die a natural death, like the twelve-cylinder engine or the cantilever spring.

(5) It is better business to stick to one thing and do it well than to try to do several. We have still much to learn about building universal joints of metal.

(6) There is a good chance that flexible drives, if they survive at all, will be standard only on cheap cars. These cars are built on a highly competitive basis, and would be the very ones where we would stand at the greatest disadvantage on account of freight rates.

(7) With the same amount of money which it would cost for this experimental work, we could complete some of the other experimental jobs upon which we have already laid out large sums, and have left half-finished.

(8) We are at a big disadvantage beside people already in the field, because car makers are not going to give up such drives in favor of ours unless we can show them a considerably better drive or a considerably better price. Under prospective conditions, we are not in a position to do either.

Fig. 52.

On the other hand, if the man chosen is of the scientific or engineering type, he should be instilled with the necessity for "selling the company," or keeping his eyes open for possibilities to promote sales, and to increase the company's goodwill.

A helping hand on the part of the management will do much to make up for deficiencies in the surveyor's experience, and the executive will find that such help will well repay him. On the other hand, it is important not to go so far as to overawe the surveyor completely and to eclipse his ideas.

General Conclusions. A business man should look upon commercial research as a thing which has come to stay. It is a foregone conclusion that he will not be able to get along without it, and still keep up with the march of business progress. On the other hand, he should not expect to obtain instantaneous results from research. This is particularly true of the more general market surveys. Studies of this kind will be likely to reveal excellent opportunities, but these opportunities can best be followed up only after a detailed study of such special fields. In other words, the general investigation is very apt to have to be followed up by a more particularized one.

The executive cannot help finding that market analysis work is distinctly constructive. Even the most cursory survey will prove informative. If he merely interviews himself by asking such questions as those in the outlines in this book, he will find that the answers bring up points vital to his marketing problem.

But the fundamental point to remember in connection with market research work and its application is that the process must be continuous if it is to be of permanent value.

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INDEX

A

Acknowledging correspondence, 57
Advertising agency, 91, 283
appeal, 283
, application of survey to, 323
, as correcting seasonal fluctuations, 247
, character of, 283
, educational, 281
, effect on market of, 224
for developing new sales, 282
, national, 197, 199, 284
, need for coöperation in, 285
, policy of, 285
, protective, 282
, purpose of, 281
, scope of, 283
, time for, 285
, types of, 280
, value as based on analysis of markets, 96
, value in competition, 178
, value of, on carton, 141
Age of customer, 201
of ultimate consumer, 211
Agency advertising, 91, 283
Aluminum Castings Company, 178
Company of America, 177
foreign methods of manufacture, 168
American Telephone & Telegraph Company, 155
Analysis, market. *See* Market Analysis.
, preliminary, 6, 105
, preliminary foreign, 296
Answers to questionnaires, 51
, Categorical, 52
, Numerical, 52
, Yes and No type, 51
Arithmetic Mean, 62
Assembling data, 45
, methods of, 46
, methods in field survey, 57
Assistants, salesmen as, 88
Associations, selling through, 264
Authorities, questionnaires to, 24
Average consumer, 209, 210
, weighted, 62

B

Bachman, E. W., 232
Baltimore News, 212, 248
Batten Company, George, 236, 321
Beech Nut Packing Company, 137
Bias, 59
Bibliographical work, 17
done outside, 18
, functions of, 18
, obstacles to, 18
Bibliography, value of, 227
Books, for research purposes, 17
Bulk vs. packaged goods, 137
Brand name, 184
as basis for competition, 184
Bureau of Foreign and Domestic Commerce, 20, 301
Butterick Publishing Company, 215
Buying habits, 213
, changes in, 213
of farmers, 214
hours, 214

Buying power, concentration of, 230
By-products, 126, 317

C

Card systems, 46
Cartage, expense of, 182
Carton. *See* package.
Catalogues as sources of information, 20, 175
Chain stores, 186
as distributors, 267
Chamberlain Metal Weather Strip Company, 324
Change, in business, 313
in demand, 224
Channels of distribution, 263, 265
Characteristics of competition, 176
of product, 124
Charts, bar, 73
, distortion of, 77
, organization, 75
, planning, 310
Cheaper product, 130
Cherington, P. T., 119
Chicago Tribune, 32, 52, 53, 54, 55, 137, 198, 216, 225, 231, 233, 242, 246
Class of customer, 216
Classification of answers to questionnaires, 51
of markets, 207
of motives for buying, 194
of opinions, 55
of products, 119
Clerical help, 88
Climate, as market limitation, 249
Cobb, Arthur, Jr., 278
Collections, company, 150
Combination, in industry, 164
Commercial registers, for mailing lists, 30
Company, the, 8
, advantage of having research department, 85
, collections of, 150
, credits of, 150
, customers of, 192
Company, external opinion of, 110
, finances of, 150
, growth of, 149
history, 148
, market research department of, 85
, foreign, 298
, marketing function of, 145
, ordeals of, 151
, organization of, 150
, plant of, 156
, problems of, 146
records, 149
, sales policy of, 277
, securities of, 150
, technical work of, 155
, using name in investigation, 90
Competition, bases of, 178
, character of, 177
, cost of overcoming, 187
, degree of, 177
, effect on market of, 213
, foreign, 300
, indirect, 186
, preliminary view of, 111
, price as affecting, 245
, second-hand, 250
, sources of information for, 175
, treatment of, 9
Competitors, advertising of, 285
, apparent, 181
, location of, 180
, number of, 182
, size of, 180
, transportion methods of, 183
Complaints, of customers, 193
Computing potential markets, 253
Concentration of buying power, 230
of industries, 169
of manufacture of utilities, 121
Conclusions, final compared with preliminary, 78
, general, 78
, policy of, 71
, suggestions obtained from, 80

Conferences, 108
, preliminary, 109
Consumer, age of, 211
, amusements of, 218
, as a unit, 208
, average, 209, 210
, class of, 211
, expert knowledge of, 217
, foreign, 301
, hobbies of, 218
, literacy of, 218
, occupation of, 215
, prejudices of, 245
, questionnaire to, 28
, race of, 210
, religion of, 211
, sex of, 210
tests, 98
, ultimate, as a group, 224
, views of, 315
Consumption, per capita, 230
Convenience goods, 128
Coöperation, importance of, 312
Correlation between industries, 168
Cost of market analysis, 86
of operating product, 246
of overcoming competition, 187
Credits as affecting market problem, 223
, company, 150
in distribution, 263
Cross, J. H., Advertising Agency, 167
Crowell Publishing Company, 214, 253
Customers, 9
, age of, 201
as sources of information, 176, 192
, complaints of, 193
, field survey of, 193
, foreign, 201, 300
, former, 202
, location of, 201
, neglected, 203
, preliminary view of, 112
, quality of, 201
, suggestions from, 195
Customers, transient, 201
, volume of business of, 201

D

Data, analyzing, interpreting, and presenting, 10
, applying, 11
, assembling, 45
, methods of securing foreign, 305
, salesmen as collectors of, 40
Dealer, mailing lists of, 30
, questionnaire to, 28
. *See* also Retailer.
Deliveries, quicker, as motive for buying, 197
Demand, trend of, 315
Dennison Manufacturing Company, 178
Department, information, 176
, production. *See* Production Department.
, purchasing. *See* Purchasing Department.
, sales. *See* Sales Department.
stores, 129
Departmental sources of information, 107
Depression, periods of, 163
vs. prosperity, 251
Diamond Match Company, 121
Directories, as sources of mailing lists, 30
Disabilities of ultimate consumers, 212
Distribution, chain store influence on, 267
, channels of, 263
, cost of, 263
, credits as affecting, 263
, definition of, 259
, determining factors in, 260
, direct, 266
, effect of market on, 223
, effect of product on, 260
, financing of, 261
, foreign, 305
, functions of, 259

Distribution, geographical, of retailers, 270
, indices of proper, 266
, indirect, 267
, mail order, 268
, market, 262
, national, 262
, new channels of, 265
, service as affecting problem, 261
, through associations, 264
, to consumers, 223
, volume of business as affecting problem, 262
Douglas Shoe Co., 164

E

Eastman Kodak Company, 184
Economic tendencies, 162
Editor and Publisher, 227, 228, 229
Electrical World, 71
Engineer, independent market, 93
, industrial, as market analyst, 93
Envelope, stamped, for questionnaire, 22
Equipment, merchandise for, 120
, office, 89
Ernst & Ernst, 76, 149
Error, compensating, 59
, cumulative, 59
Estimates, 60, 99
Executives, personality of, 185
External point of view, 110

F

Farmers, buying habits of, 214
Fashion. *See* Style.
Field survey, assembling, 57
of customers, 193
of retailers, 270
Filing, 88
Finance, company, 150
, distributing function, 260
Fishing Gazette, 48, 49
Ford automobile, 121, 178, 185, 217
Foreign annuals, 306
competition, 300
consumers, 301
Foreign customers, 211, 300
customs tariffs, 306
distribution, 305
industries, 168
information, geographical, 306
merchandising methods, 304
nature of market, 302
Foreign market analysis, 293
, company in, 298
, how made, 293
, industry in general in, 299
, preliminary, 294
, product in, 296
Form letters, 90
of report, 70

G

General Motors Corporation, 184
Goods, convenience, 128
, shopping, 129
, style, 121
, utility, 121
, utility and style, 122
Goodwill as basis of competition, 185
Government restrictions on markets, 251
Graphs, 73
Great Atlantic & Pacific Tea Company, 164

H

Habits, buying, 213
, change in buying, 213
Hammermill Bond Company, 42
History of the business, 107
of the company, 148
of the product, 131
Homes, ownership of, as market index, 233
Hostility to surveyor, 107
Hotels, 202

I

Idaho Power Company, 318
Illustrating reports, 71
Illustrations, methods of reproducing, 76

Income tax returns, as index, 232
Independent market specialists, 93
Index number, 62
Indianapolis News, 36
Indices, market, 234
, as short cut, 253
Industrial Engineers as market analysts, 93
Industries, allied, 168
, correlation between, 168
, concentration of, 169
, domestic and foreign, 168
, localization of, 169
Industry, cotton, 170
, cotton toweling, 77
, electrical, 254
, information concerning, 111
, in general, 8
, foreign, 299
, labor conditions in, 171
, match, 165
, motor truck, 165
, moving picture, 171
, optical, 212
, patent medicine, 212
, phonograph, 182
, statistics of, 161
, textile, 166
, tractor, 247
, value of production in, 162
, volume of production in, 161
, wages in, 171
Information departments, 176
Integration, in industry, 164
Internal point of view, 106
Interview, advantages of, 36
, disadvantages, 37
, methods of securing, 37
, number required, 36
Interviewer, requisites of, 40
Invention, effect of revolutionary, on product, 134

J

Jobbers as a sales problem, 277
as source of mailing lists, 30
, attack on, 259
Jobbers, complaints against, 269
, local, 268
, national, 269
, opinions of, 269
, questionnaire to, 28
, sectional, 269

L

Labor as basis of competition, 182
condition in industry, 171
Legislation, effect on market, 223
, effect on product, 134
Letters, form, 90
, special, 36
, to accompany questionnaire, 34
Library, company's, 18
, use of, 17
Limitations on markets territorially, 236
on use of product, 128
Line of goods as basis for competition, 181
Literacy as index, 234
of consumer, 218
Little, Arthur D., 136, 162
Localization of industries, 169
Location as basis for competition, 180
of customers, 197, 201
Luxury, 129
, degree of, 130
, market for, in hard times, 252

M

Machinery, 120
at plant, 156
Mailing lists, where obtained, 30
Mail order houses, 186
as distributors, 267
Manufacture, process of, 177
Maps, 75
Market analysis, applying, the, 310
as a basis for advertising, 96
, combined with other work, 85
, cost of, 86
definition, 2
department coördinating, 89

Market analysis, department in company, 85
, foreign. *See* Foreign market analysis from economic necessity, 96
, functions of, 3
preparatory to introducing goods, 95
, preventative, 97
, qualifications for, 87
, reasons for, 55, 95
, results general, 314
, results specific, 317
, size of department, 87
, steps in procedure of, 4
Markets, actual, 208
, application of scientific methods to, 84
, classification of, 207
, complexity of, 222
, computing potential, 252
, definition of, 1
, geographic extent of, 226
, growth of company's, 150
in distribution, importance of, 262
, limitations on, 244, 303
, methods of approaching, 238
, nature of foreign, 302
, population in, 238
, potential, 208, 242, 303
, problems, 98
, related, 237
, seasonal, 247
, second hand, 250
, sources of information, 226
, territorial limitations of, 236
, unexploited, 316
Materials, raw, 120
Mayer Bros., 24
Median, 62
Merchandise for equipment, 120
for individual consumption, 120
for manufacture, 119
Merchandising, definition of, 259
, foreign methods of, 304
Merchandising methods, 98
services, 92
Methods of approaching markets, 238
of packaging, 141
of presenting statistics, 61
of reproducing illustrations, 76
Middleman, the, 259
Mill, John Stuart, 180
Milwaukee Journal, 26, 27, 37, 38, 58, 61, 138, 195, 216, 236, 244
Mimeograph, 89
Minneapolis Tribune, 78
Mode, the, 62
Monopoly, degree of, 177
Motives for purchase, 129, 194
, advertising as, 199
, better price as, 198
, better terms as, 198
, classified, 194
, habit as, 195
, location as, 197
of consumers, 209
, personal feeling as, 196
, quality as, 199
, quicker deliveries as, 197
Multigraph, value of, 89

N

Name, using company's, 90
Nast Publications, 230, 284
National advertising, as motive for buying, 197
Automobile Chamber of Commerce 123, 135
Cash Register Company, 185
Necessities, 129
New Orleans Item, 211, 230
Newspapers, research activities of, 92
New York Evening Journal, 320
Notes, value of, 108
Number of products manufactured, 126
Numerical answers to questionnaires, 52
Nystrom, Paul H., 260, 264

O

Occupation of consumer, 215
Office equipment, 99
Oliver Typewriter Company, 265
Opinions from experts, 56
, treatment of, 54
Organization chart, 75
of company, 150
of market analysis department, 85

P

Pacific Ports, 211
Package, publicity value of, 141
, serviceability of, 140
, shape of, 140
, standardization of, 140
Packaged goods, 137
Packaging, 137
, methods of, 141
, standardized, 139
Packard Motor Car Company of New York, 318
Parlin, Charles Coolidge, 268, 274
Patents, basic, 132
, process, 132
, value in competition, 178, 186
Per capita consumption, 230
Periodicals, for research, 19
, research activities of, 92
Personal equation, 147
feeling, as motive for purchase, 195
Personality, of executive, 185
Personnel, 152
Photographs, use in illustrating report, 75
Pierce Arrow Motor Car Company, 178
Planning chart, 310
the campaign, 7
Plant, equipment of company's, 156
, location of company's, 156
, organization of company's, 156
, size of company's, 156
Point of view, internal, 106
, external, 110
Policy, of advertising, 285
of company, 147
of conclusions, 77
of sales, 277
Population, 228
Prediction in purchasing department, 153
Prejudice of consumer, 245
, permanent, 212
, temporary, 212
Preliminary analysis, 6
, foreign, 296
, purpose of, 105
, results of, 105
conference, 109
Price as a basis of competition, 179
as a limitation, 244
, effect on packaging, 139
, fixed, 179
, influence on sales department, 274
, list as source of information, 175
Printers' Ink, 184, 192, 249
, Monthly, 25, 41
Problem, determining the, 5
, dividing the, 100
, logical components of, 100
, major and minor, 100
, market, indefinite character of, 99
of foreign analysis, 296
of company, 146
Procedure of making surveys, 4
Product, the, 8
, cheaper, 130
, chemical properties of, 124
, classification of, 119
, cost of operating, 246
, danger of being superseded, 133
, definition of, 118
, demonstrating, 276
for foreign use, 296
for sales in different markets, 127
, general characteristics of, 124
, history of, 131

Product, ideal, 124
, improved, 130
, influence of, on distribution, 260
, influence of, on sales force, 275
, intangible, 122
, modifying, 324
, number of, 126
, packing of, 137
, physical characteristics of, 124
, reasons for existence of, 130
, shortage of, 130
, style of, 121, 127
, substitutes for, 133
, technical tests of, 97
, type of, 127
, unsuccessful, 151
, use of, 128
, utility, 121
Production, regulating, 325
, value of, 162
, volume of, 161
Production department, 154
, product policy of, 128
Professional etiquette, 123
Prosperity, periods of, 163
vs. depression, 151
Purchasing, correlated with production and sales, 154
department, 153
from habit, 195
power, 232
records, 154

Q

Quality as motive for purchase, 199
of customers, 201
Quality Group, The, 216, 232, 248
Quaker Oats Company, 140
Questionnaire, formulating, 31
, functions of, 21
, interest in, 23
, letter to accompany, 34
, number necessary, 21
, oral, 108
, rules for, 33
, special delivery stamp, 22
Questionnaire, stamped envelope for reply, 22
, telegram, 22
to authorities, 24
to consumers, 28
to dealers, 28
to jobbers, 28
to whom to send, 24
Quicker deliveries as motive for purchase, 195

R

Race of ultimate consumer, 210
Raw materials, 120, 77
Recapitulation sheet, 50
Records, company, 149
Religion of ultimate consumer, 211
Report, appearance of, 68
, final success of, 312
, form of, 70
, fundamentals of, 68
, illustrating, 71
, outline for, 66
, submitting, 113
, writing the, 66
, writing the preliminary, 113
Results, comparing of external and internal views, 112
Retailer as outlet for product, 269
, completeness of stock, 181
, field survey of, 270
, function of, in selling, 278
, geographical location of, 270, 181
, size of, 180

S

Sale, units of, 138
, influence of, on sales force, 277
Sales department, 157
, applying survey to, 317
, emphasis on variety of products, 127
engineering, benefits of, 200
methods, peculiar, 279
policy, 277
, repeat, 280

Sales, resistance in new markets, 243
, success dependent on, 274
Salesmen as assistants in market research, 88
as data collectors, 40
, character of, 274
, influence of price on, 274
, influence of product on, 275
, personality of, 196, 276
Seasonal limitations on market, 247
Second hand markets, 250
Securities, company, 150
Service, effect on distribution, 261
, rendered by company, 182
Sex of ultimate consumer, 210
Shape of package, 140
Shopping lines, 129
Shortage in supply of product, 131
Size as affecting distribution, 266
as basis of competition, 180
of retailer, 180
of unit order 275
Sources of information, catalogues, 20, 175
, competitors, 175, 176
, customers, 176
, departmental, 107
, government, 20
, interview, 36
, library of company, 18
, market, 226
, questionnaire, 20
, statistical, 19
, trade papers, 19
Sources of supply, new, 135
Special delivery stamp in questionnaire, 22
letters, 36
Stamped envelopes, use for questionnaire, 22
Statistical presentation, 61
Statistics, foreign, 306
, industry, 161
, population, 228
Style as market limitation, 245
goods, 121
in competition, 178
Style as market limitation of product, 126
Substitutes for product, 133
Suggestions of customers, 195
Survey, market. *See* Market survey.
Surveyor as coördinating influence, 155
, handling the, 325
, requisites of, 87

T

Tables, statistical, 75
Tariffs, customs, 306
Technical work, in company, 155
Telephone books, as sources for mailing lists, 30
Tendencies, economic, 162
Tendency of consumer to switch, 195
Terms, better, as motive for purchase, 199
Testimonials, 194
Tests, customer and consumer, 98
, technical of product, 97
Time required for survey, 91, 112
Tractors, distribution methods of, 264
Trade associations as sources for mailing lists, 30
in research work, 19
Trade papers as sources for mailing lists, 30
in research work, 19
Transient customers, 201
Transportation as basis of competition, 183
in marketing problem, 212
means used by competitors, 183

U

Units of sale, 138
United Cigar Stores, 178, 181
United Drug Company, 165, 259
United Shoe Machinery Corporation, 135, 165
United States Steel Corporation, 164
Use of product, 128
Utility goods, 121

V

Value of production in industry, 162
Vanity Fair, 35
Vogue, 29
Volume of business, effect on distribution of, 262
of customer, 201
production in industry, 161

W

Wages in industry, 171
Wealth, as market limitation, 249
Western Electric Company, 254
Women, employment of, in market analysis, 88
Writing the report, 66, 113